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## Quotative constructions and prosody in some Afroasiatic languages: Towards a typology

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### Abstract

This chapter investigates, in a crosslinguistic perspective, the relationship between prosodic contours and direct and indirect reported speech (i.e. without or with deictic shift) in four typologically and genetically different Afroasiatic languages of the CorpAfroAs pilot corpus: Beja (Cushitic), Zaar (Chadic), Juba Arabic (Arabic based pidgin) and Modern Hebrew (Semitic). The descriptive tools and analysis of Genetti (2011) for direct speech report in Dolakha Newar (Tibeto-Burman) are used as a starting point and adapted to the annotation system of CorpAfroAs. Each language section investigates the prosodic cues and contours of direct speech reports, in relation with their quotative frame and their right and left contexts. As contradictory claims (e.g. Coulmas 1986, Klewitz & Couper-Kuhlen 1999, Jansen et al. 2001) have been made concerning the prosodic features of indirect reported speech, e.g. in English, the same prosodic features are also investigated for the three languages which have indirect reported speech (Zaar, Juba Arabic and Hebrew). It is shown that speech reporting as a rhetorical strategy varies a lot from one language to another and is more frequent in the three unscripted languages of the sample. Even if speech reports show a wide range of prosodic behaviors, there are nonetheless clear tendencies that become apparent and which are related to various factors: speech report types, types of constituents of the quotative frame, genres, and typological features of the languages. A preliminary typology of the interface between prosody and speech reporting is proposed.

### 1. Introduction and theoretical background

The topic of direct and indirect speech has attracted a lot of attention from linguists, and recently their prosodic treatment has been in focus of several studies for better-known languages such as English especially from the perspective of conversational discourse analysis (e.g. Klewitz and Couper-Kuhlen 1999, Jansen et al. 2001) and computational linguistics (e.g. Oliveira and Cunha 2004). It is only more recently that an in-depth analysis of a

lesser-known language, Dolakha Newar, a Tibeto-Burman language spoken in Nepal, was provided by Carol Genetti (2011). The present study builds on the methodology and analysis developed in her study with some adaptation to the annotation system of the CorpAfroAs project. It aims at providing first-hand information on other lesser-described languages of another language phylum, *viz.* Afroasiatic and at paving the way for a typology of the interaction between prosody and reported speech.

This chapter analyses from a crosslinguistic perspective the relationship between prosodic contours and direct and indirect reported speech (i.e. with or without deictic shift) in four typologically and genetically different Afroasiatic languages of the CorpAfroAs pilot corpus: Beja (Cushitic), Zaar (Chadic), Juba Arabic (Arabic based pidgin) and Modern Hebrew (Semitic), in this order. The study is limited to direct and indirect speech reports marked by quotative frames, which contain the most ‘basic’ speech verbs of each language under study, i.e. ‘say’ verbs, excluding verbs such as ‘ask’, ‘demand’, ‘shout’, or alternatively, which contain just a complementizer.

Our analysis is based on an extension of the theoretical approach proposed by Genetti (2011) for Dolakha Newar: we applied her concept of the “prosodic integration cline” of direct speech reports within the quotative frame within a single language to several typologically different languages and also to indirect speech reports. The prosodic integration cline is characterized and explained as follows:

A number of features are used to mark discourse as direct speech, including the relative positioning of prosodic and syntactic boundaries, patterns of terminal contours, and changes in loudness, pitch range, register, and timing. As many of these features are scalar, direct speech reports can be placed on a cline from prosodically independent to prosodically integrated with respect to elements of the quotative frame. This variable prosodic behavior can be attributed to competition among discourse functional, syntactic, and production factors. (Genetti 2011: 55)

Genetti further shows that this cline has

two distinctive endpoints, one with IU boundaries at both sides of the speech report, shifts in pitch and loudness, and the production of terminal contours, alone or in sequence, typical of prosodically independent units in other types of discourse ... On the other end is the necessarily shorter speech report, which is fully integrated into the quotative frame, and receives no prosodic marking whatsoever ... Between this, direct speech reports can vary from having more or fewer markers of independence and greater or lesser degrees of variation in pitch or loudness. (Genetti 2011: 72)

This theoretical extension constitutes the basis of the concluding section where we propose the preliminary basis for a crosslinguistic typology of the prosodic treatment of speech reports, also in relation with the morpho-syntactic typological profiles of the languages. We also discuss, when relevant, the degree of prosodic integration with the adjacent narrative or conversational context.

Section 2 provides the conventions and methods for the prosodic analysis, section 3 analyses intonation contours of speech reports in Beja, section 4 in Zaar, section 5 in Juba Arabic and section 6 in Modern Hebrew. In the conclusive section 7 the findings in the four languages are compared in view of a possible typology of speech reporting.

## **2. Conventions and methods of prosodic analysis**

The corpus on which our analysis is based is made of one hour of recordings for each language, except Juba Arabic for which only 46 mn were ready at the time of the writing of this chapter.

The prosodic segmentation of the data, as for the entire CorpAfroAs project, is based on intonation units (henceforth IU) defined in their most commonly

accepted sense of “a coherent intonation contour” (cf. e.g. Chafe 1994; Du Bois et al. 1992, 1993; Tao 1996) which “encapsulates a functional, coherent segmental unit, be it syntactic, semantic, informational, or the like” (Izre’el and Mettouchi, this volume; cf. Cruttenden 1997). As for the whole CorpAfroAs corpus, four major perceptual and acoustic cues were used to recognize the boundaries between IU-s: (1) final lengthening; (2) initial rush; (3) pitch reset; (4) pause. In addition two internal criteria were used: (1) declination (also called ‘downdrift’); (2) tonal parallelism (Wichmann 2000), or isotony (Du Bois 2004), (cf. Izre’el and Mettouchi, this volume). A distinction is made between minor (or continuous, i.e. signaling ‘more to come’) and major (or terminal, i.e. signaling ‘nothing more to say’) boundaries which basically follows the difference, based on speech act theory, between terminal break and non-terminal break as used in Cresti and Moneglia’s (2005) for the C-ORAL-ROM project:

a prosodic break is considered terminal if a competent speaker assigns to it, according to his perception, the quality of concluding a sequence ... a prosodic break is considered non-terminal if a competent speaker assigns to it, according to his perception, the quality of being non-conclusive (Cresti and Moneglia 2005: 17).

The precise prosody of the final contours of IU-s (such as high-fall, mid-fall, rise, etc.) which depend on pragmatics and on the modal category of the utterance (e.g. assertion, interrogation) are not specified in the annotation. It is important to recall here the reasoning behind such a choice, since it explains the difference with Genetti’s (2011) more precise annotation, based on Chafe (1994) and Du Bois et al. (1992), which is sensitive to prosodic movement:

[T]he annotation of terminal and non-terminal breaks does not describe the prosodic movement that actually occurs in correspondence with a specific speech segment, but rather it selects the specific segment where, according to perception, a significant movement occurs. At the same time the annotation does not specify

which proper speech act is performed by a sequence of word, but rather, specifies which sequence of words performs an act, for prosodic reasons. ... Once the relevant domain for prosodic movements and speech acts is determined, this will probably allow a better interpretation of both the relevant prosodic movements and the functional, dialogical value of the speech event. The same consideration can hold for syntactic features. Utterances cannot be identified and defined on the basis of syntactic properties as clauses can, for instance, but once an utterance is identified on the basis of a terminal break, any kind of morpho-syntactic and lexical evaluation can be driven on it. (Cresti and Moneglia 2005: 20)

In addition to the annotation of minor and major intonation boundaries, the duration of pauses in milliseconds, and the mention of breath intakes (because in some languages they play a role in narratives), is indicated.

The table below sums up the prosodic transcription conventions used in CorpAfroAs (and in this chapter):

Intonation units boundaries	
minor boundary	/
major boundary	//
breath intake (during a pause)	BI_
Duration of pauses (in milliseconds)	
short pause	(100) to (200)
medium pause	(300) to (600)
long pause	(700) and over

Table 1: Prosodic transcription conventions

Thus where Genetti (2011) has 5 terminal contours, high-falling (\\), mid-falling (\), level (\_), rising (/), marked-rising (//) and rise-fall (^), we only note a continuing contour (/) and a terminal one (/). Unlike Genetti, we don't annotate "normal" phrasal accents and "emphatic" phrasal accents (i.e.

pronounced at a higher pitch than the narrator's average pitch), but on the other hand, we systematically quantify the duration of pauses. Nevertheless, prosodic movements are discussed for each of the four languages.

We tried as much as possible to stick to the largely adopted convention (cf. Chafe 1994) which consists of writing each new IU on a new line, but this was not always possible because of the length of certain glosses or IU-s which forced us to write one IU on two or three lines, but the second and third ones are indented towards the end of the line to signal that it forms one IU with the preceding line; the first occurrence of /, //, (duration of pause in milliseconds), or BI\_(duration of pause in milliseconds) indicates the end of the IU.

### **3. Beja quotatives**

#### *3.1. Elements of syntax and prosody*

Beja, a North-Cushitic language spoken in Sudan, as a good number of Cushitic languages, is the sole language of our sample which is strongly SOV, although the linear order may vary and be determined by information structure. When the object is a clitic pronoun the order changes to SVO. The language has three basic nominal cases, nominative, accusative and genitive. Grammatical subjects are marked on noun determiners with a nominative case characterized by a vowel *uː* (SG) / *aː* (PL). The object category is marked by an accusative case, characterized by a vowel *oː* (SG) / *eː* (PL), on noun determiners,<sup>1</sup> which is used with patients of transitive verbs as well as with patient and recipient arguments of ditransitive verbs. Recipient arguments of transitive verbs, among them the quotative verb *di* 'say', are

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<sup>1</sup> Only some syllabic structures of nouns license these vowels. For the others, case is not overtly marked and the determiner has an invariable vowel *i*. See Hamid-Ahmed (2013) for a detailed analysis.

introduced by the directional postposition *dhaɟ* / =*da* / =*d* ‘towards’ which licences the genitive case, characterized by a vowel *-i* (SG) / *-e* (PL) suffixed to its nominal or pronominal host; the use of the postposition is systematic when the recipient is a noun or an independent pronoun, but impossible with an enclitic object pronoun, which is in the accusative case. In complex sentences, the relative clause is usually embedded in the matrix clause; the nominal head most often precedes the relative clause (it may follow it for pragmatic reasons), the rest of the embedding clause follows it. Headless relative clauses, object complement clauses (as well as other types of dependent clauses) usually precede the matrix clause, and thus precede, directly or indirectly, the verbal head. All three sentence types are most often introduced by the same clitic markers (enclitics are directly attached to the verb, proclitics to the first constituent of the relative clause). Clitic markers are not compulsory with non restrictive relative clauses. Complement clauses may use instead the Simultaneity or the Manner converb, without a clitic marker (for further details see Vanhove 2012). Except for the linear order, quoted speech does not pattern with the abovementioned complex sentences: speech reports are never introduced or followed by a complementizer. Beja is the sole language of our sample in which reported discourse is always direct, i.e. without a deictic shift to the perspective of the narrator: the speech is reported as told by the character.<sup>2</sup> Direct speech reports are syntactically quotative complements,<sup>3</sup> objects of

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<sup>2</sup> We follow Genetti’s (2011: 56-57) terminology, who uses “the term “narrator” to refer to the speaker who produced the narrative text and the term “character” to refer to the speaker whose words are reported.”

<sup>3</sup> One of our reviewers mentioned, for a different view, S.A. Thompson (2002) who shows that in English spontaneous conversations complement taking predicates (in the sense of Noonan [1985]) are rarely if ever “complements”, and what is usually considered as the complement clause of complement taking predicates is in fact better “understood in terms of epistemic/evidential/evaluative formulaic fragments expressing speaker stance towards the content of a clause.” (Thompson 2002: 125). Note however that speech reports introduced by the quotative verb ‘say’ are highly marginal in her data and that our data consist in a minority of spontaneous conversations, and none in the Beja data under discussion here.



the quotative verb: they take up the same syntactic slot as a nominal object, which may also be the object argument of the quotative verb. Similarly to relative clauses, the quoted speech is embedded within the quotative frame (i.e. the matrix clause). Both the subject and the recipient, i.e. the addressee (except if an enclitic object pronoun) when overtly expressed (which is rare in the CorpAfroAs data) precede the quoted speech in this order, but there is not a single occurrence with them both in this order in the CorpAfroAs data; the quotative verb *di* ‘say’ follows the quoted speech (in some rare instances, it can also occur before the completion of the reported speech).

- (1) *oɾ=ja:s-i=d* ***hus ak-aʹ***  
 DEF.SG.M.ACC=dog-GEN.SG=DIR voice be-IMP.SG.M  
*ejadna*  
 say\IPFV.3PL  
 ‘they tell the dog: Shut up!’ (BEJ\_MV\_NARR\_18\_Adam\_devil\_221)

The use of the quotative verb is not compulsory:

- (2) *uɾ=tak* ***halak hasara***  
 DEF.SG.M.NOM=man cloth gosh  
***jhak-s-aɾ=b*** ***ki=i-ki***  
 get\_up-CAUS-CVB.MNR=INDF.M.ACC NEG.IPFV=3SG.M-be\PFV  
 ‘the man (says): Gosh, I have not taken any (warm) cloth!’  
 (BEJ\_MV\_NARR\_07\_cold\_22)

To sum up, the quotative frame enfolds the speech report, it is most often reduced to the quotative verb which follows it; the quoted speech may be used without the quotative verb<sup>5</sup> (typically in a series of dialogues) and only be signalled by the absence of deictic shift and by prosodic cues.

Prosodically, Beja is a language with both lexical and grammatical stress, realized as a high pitch, except in a few nouns where singular and plural forms are opposed by a rising contour and a falling contour on the accented final syllable. In words used in isolation, stress assignment rules are partly

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<sup>4</sup> As in Genetti (2011), the speech reports are highlighted in bold script.

<sup>5</sup> The absence of a quotative verb or frame is common crosslinguistically for both written and oral registers. This has been particularly discussed within the frame of conversational analysis (see Klewitz and Couper-Kuhlen 1999).

conditioned by the syllabic structure and partly depend on the grammatical category, and on the presence or absence of affixes and clitics. Position of stress may also be the only means to distinguish two homophones (for details see Vanhove 2012: 8-9). In verbs, stress depends on the syllabic structure of the flexional morphemes and on the verb class. For nouns, stress is lexically assigned, unpredictable in most cases except for the penultimate stress of disyllabic nouns ending in a short vowel. In continuous speech, stress assignment depends in addition on pragmatics, speech tempo and intonation contours which may produce stress shifts as well as “emphatic” accents as opposed to “normal” accents, in the sense of Genetti (2011: 160): “I distinguish two types of phrasal accent: normal and emphatic. Normal phrasal accent results in prominence which is noticeable but unremarkable. Emphatic phrasal accent, by contrast, has significant pitch excursions.” One IU may have several “normal” stresses before the final break, but rarely more than one “emphatic” phrasal accent. In declarative utterances, the prosodic contour of a minor continuing break is either rising or level, with a possible pharyngealization or lengthening of the vowel of the last syllable; prosodic contours of major terminal breaks are falling or mid-falling in utterances which follow a regular declination contour, and final vowels are often devoiced. In questions, final breaks are either level or mid-fall, sometimes high-fall, rarely rising; they are regularly rising with the marker of polar questions *han* in final position and with the interrogative verb *ke:* ‘to be where?’. In addition, the overall contour of a question is marked at the onset by a much higher pitch than the rest of the question, most often on the first syllable of the question, rarely the second one, then F0 strongly drops and usually goes on with a level contour (rarely ending on a final rising). Exclamative and imperative utterances also usually start at a high pitch, but there is more prosodic variation on the whole utterance; they usually end in a rising or high-fall contour. Topics are in a separate IU, most often

followed by a pause. Focusing does not necessarily entail a higher pitch on the focused element.

The CorpAfroAs data on which this analysis is based, contrary to the other languages of the project, only contains narratives (17 traditional tales and 1 personal narrative; 17 were told by the same male speaker, and one by a female speaker); conversations were impossible to record because of social rules of politeness and honour.

Direct speech report with a quotative verb is a frequent rhetorical strategy in Beja narratives; a total of 317 utterances were studied for this paper (leaving aside those without a quotative frame, or reduced to ‘yes’, ‘no’ or ‘that’s fine’ which are numerous and have been counted only once).

### *3.2. Prosodic integration cline in Beja*

#### *3.2.1. Speech reports and quotative verb*

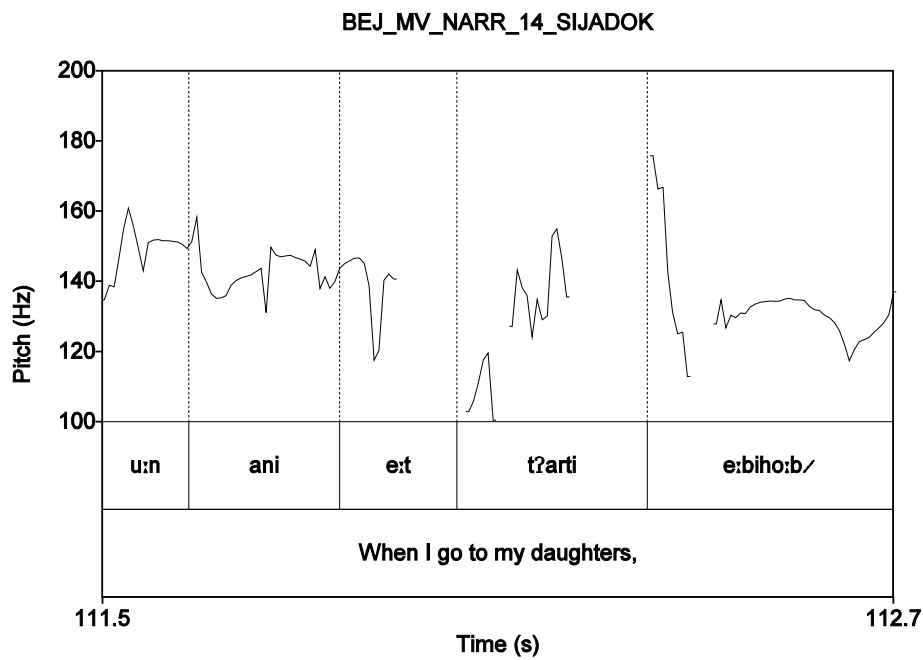
Direct speech in Beja is rarely set off from the quotative verb by intonation-unit boundaries. The prosodic integration of the direct speech reports within the same IU as the quotative verb concerns the vast majority of the speech reports (almost 90% of the 317 examples). The quotative verb belongs either to the same IU as the whole quoted speech (90 examples), or, if the reported speech is split into several IU-s, to the last IU of the quoted speech (175 examples), or to an internal IU (12 examples). As shown by these figures, the production of a speech report across multiple IU-s concerns a large majority of the utterances, i.e. 68%. In the corpus, a single direct speech report can be as long as 13 IU-s of various durations and with different pitch variations, separated or not by short, medium and long pauses. Quite often the quotative verb cliticizes to the speech report, is uttered in a very rapid tempo and pronounced in such a low pitch that it does not show on the pitch trace provided by the PRAAT software. When the quotative verb is in the 3SG.M Perfective *ini* and does not bear any clitic element, it may even be

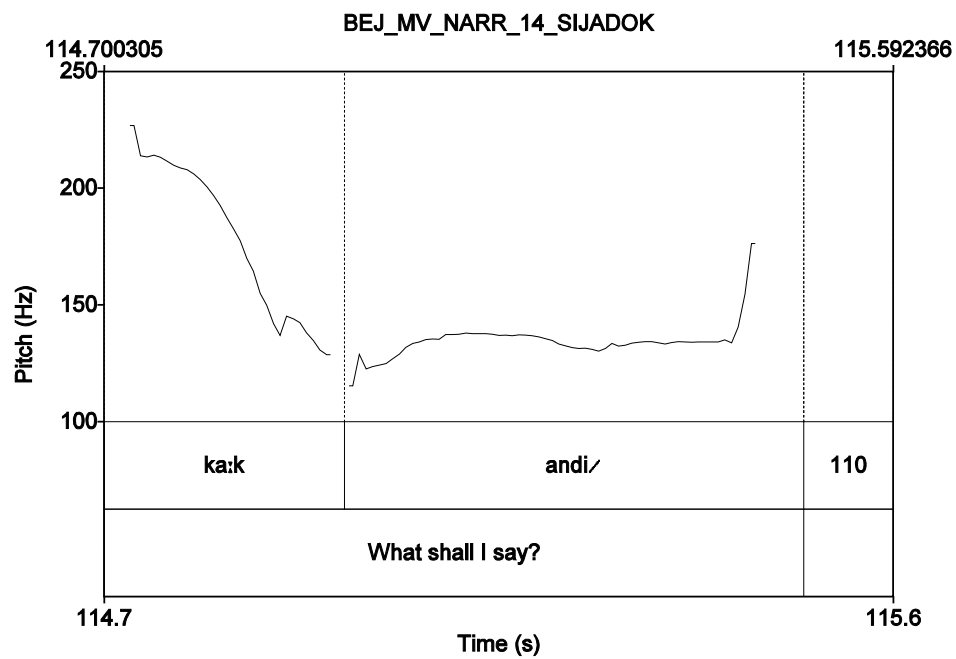
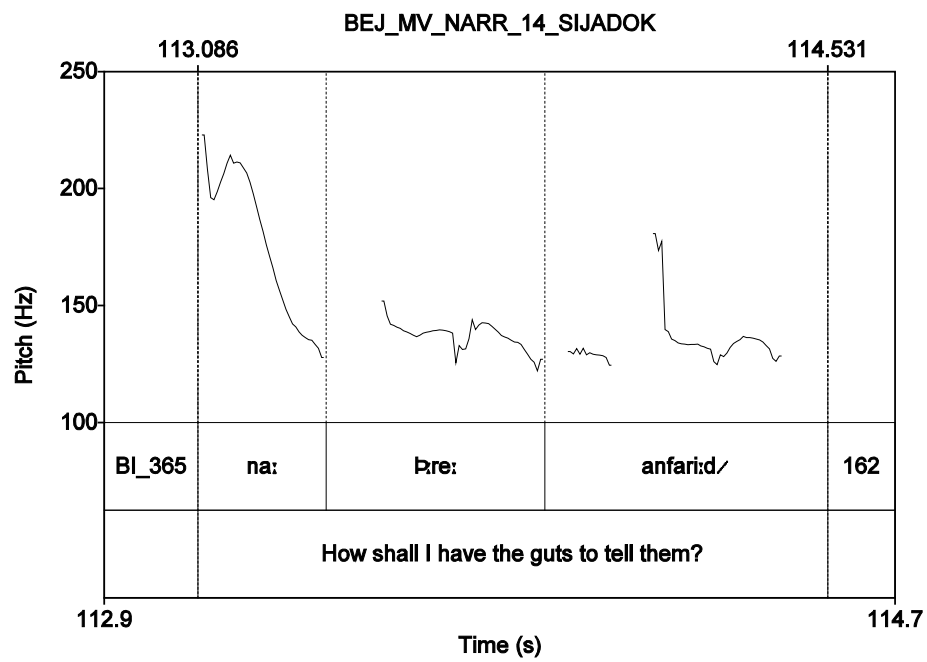
Below are three typical examples of each of the above categories. Example (3) shows a rather long speech report, which is set off from the previous and next IU-s by medium pauses, and which includes the quotative verb in the same prosodic unit:

- 
- BEJ\_MV\_NARR\_15\_LEOPARD
- Pitch (Hz)
- 250
- 200
- 150
- 100
- 70
- a:ladʒanhɔ:b
- u:jha:m
- dhe:
- farija
- ini://
- When I teased it, the leopard jumped upon me, he said.
- 45.26
- 47.1
- Time (s)

(4) *ʉn*                      *ani*                      *ɛt*  
PROX.SG.M.NOM    1SG.NOM    PROX.PL.F.ACC  
*t=ʔar=t=i*                                      *ɛ-bi=ho:b* /

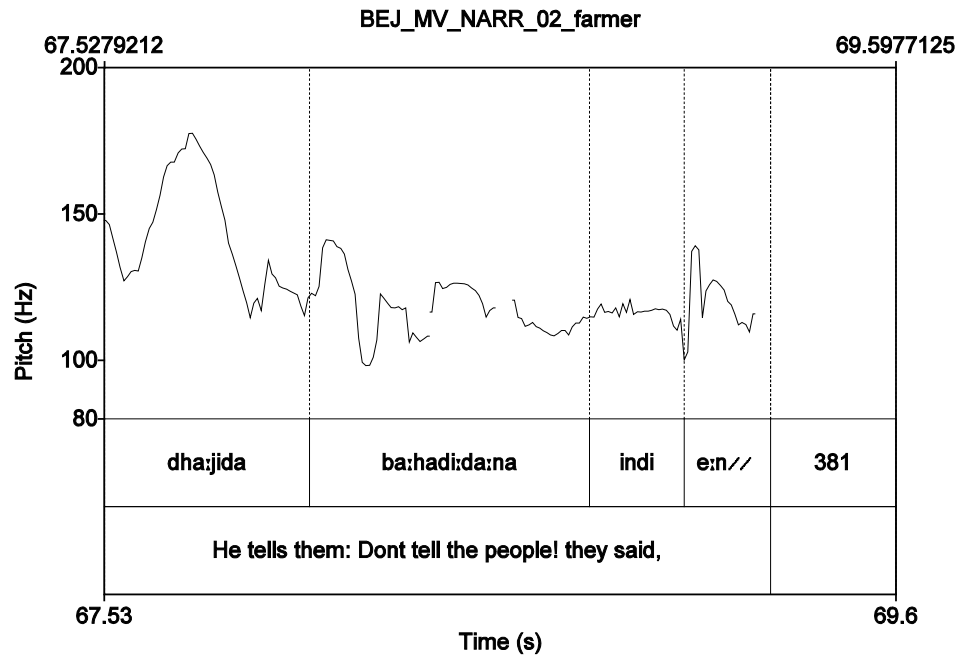
DEF.F=child\PL=INDF.F=POSS.1SG.ACC 1SG-go\INT.IPFV=when  
**BI\_365 na: fir=e: a-nfari:d / 162**  
 which face =ABL.PL 1SG-talk\IPFV  
**ka:k a-ndi / 110**  
 how 1SG-say\IPFV  
**ka:k i-d=he:b a-ndi /**  
 how 3SG.M-say\PFV=OBJ.1SG 1SG-say\IPFV  
**na:=t mʔari ha:j e:bi di:t /**  
 thing=INDF.F food COM 1SG-go\INT.IPFV say\CVB.ANT  
 she says: "When I go to my daughters, how shall I have the guts to tell them?  
 What shall I say? How shall I tell them what he told me? What shall I bring  
 them to eat?", and... (BEJ\_MV\_NARR\_14\_sijadok\_137-144)





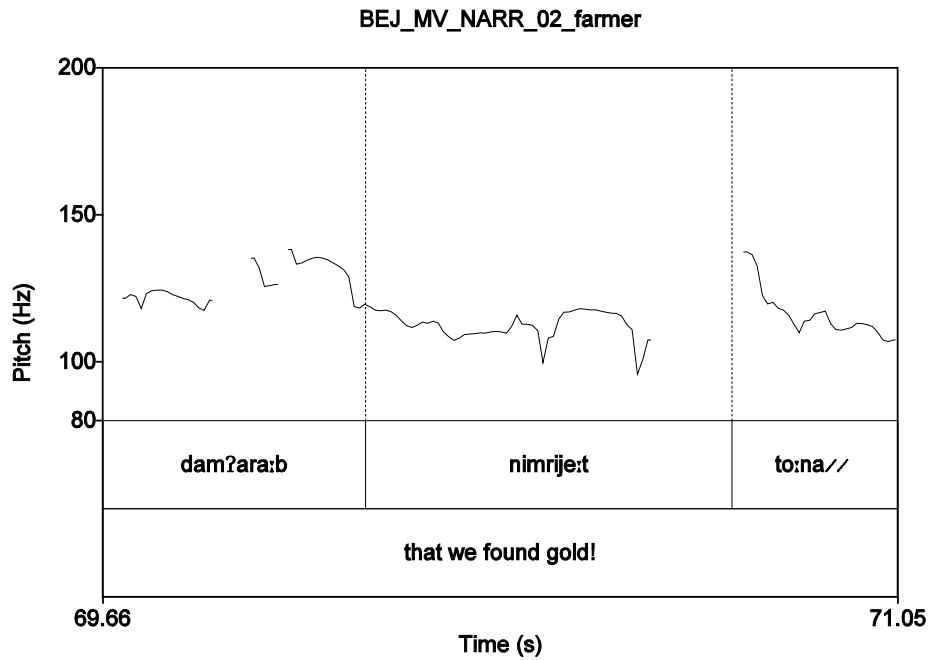


*damʔara:* = *b*      *ni-mri* = *jet*      say\PFV.3PL  
 gold=INDF.M.ACC 1PL-find\PFV=REL.F    *to:* = *na*      //  
 He tells them: "Don't tell the people!" they said, "that we found gold!"  
 (BEJ\_MV\_NARR\_02\_farmer\_073-075)



<sup>6</sup> = *jet to:* = *na* is both a relative marker and a complementizer. As all polyfunctional and polysemous items of the CorpAfroAs project they are glossed the same (in this case as “=REL.F DEF.SG.F.ACC=thing”), according to their prototypical and most frequent meaning.





In only 40 examples the direct speech report occurs in a different IU, set off from the quotative verb by a pause in 60% of them (24), most often short or medium. The non integration of the direct speech report within the quotative frame occurs frequently (29 tokens) when the quoted speech consists of an exclamative utterance or contains an Imperative verb form or onomatopoeia, (but these quote types may also occur, more rarely, in one IU together with the quotative verb). In one instance it occurs after a hesitation. These clause types typically start on a high pitch (of 200 Htz and above for the male speaker, far above his average pitch) before dramatically decreasing of some 100 Htz or more. The non-prosodically integrated quotative verb, even when not separated by a pause from the reported speech starts with an upward pitch reset (between 20 to 30 Htz) which sets it off from the speech report. In most cases there is in addition a rush on the quotative verb. Such dramatic falling contours, not characteristic of non-quotative narrative discourse, are commonly heard on exclamatory and vocative expressions. Below are a few examples.

- (6) *alla:j bare:so:kna = ka /*  
 God 2PL.ABL=CMPR  
*nhas = ka nija: = ju // BI\_541*

clean=CMPR            intention=COP.3SG  
*i-ndi*                    *en*                    //  
 3SG.M-say\IPFV    say\PFV.3PL  
 ‘God has better intentions than yours! he says, they said’<sup>7</sup>  
 (BEJ\_MV\_NARR\_08\_drunkard\_077-080)

- (7) *be:n*                    *kʷikʷʔaj* *hi-na*                    // 383  
 DIST.SG.M.NOM    crow                    give-IMP.PL  
*ti-ndi=jə:b*                    *o: = do:r*                    //  
 3SG.F-say\IPFV=REL.M    DEF.SG.M.ACC=time  
 ‘when it says: Give it to Crow!’  
 (BEJ\_MV\_NARR\_16\_Prophet\_Fox\_Crow\_306-308)

- (8) *hawawawawa* /  
 woof  
*i-ndi = ho:b*                    /  
 3SG.M-say\IPFV=when  
 ‘when it says: Woof!’ (BEJ\_MV\_NARR\_18\_Adam\_devil\_207-208)

- (9) *jha:*    *na:na: = t = i*                    *ti-dir = i*                    /  
 ADRF    why = INDF.F = COP.3SG    AOR.2SG.M-kill = OBJ.1SG  
*əəə* /  
 er  
*i-ndi = jat*                    //  
 3SG.M.say\IPFV=COORD  
 ‘Hey! Why have you killed me? er, it says and...’  
 (BEJ\_MV\_NARR\_18\_Adam\_devil\_160-162)

The remaining examples are long quotes (from 3 to 13 IUs) with a rather complex syntactic organization, including quotes within quotes.

### 3.2.2. The onset of the speech report

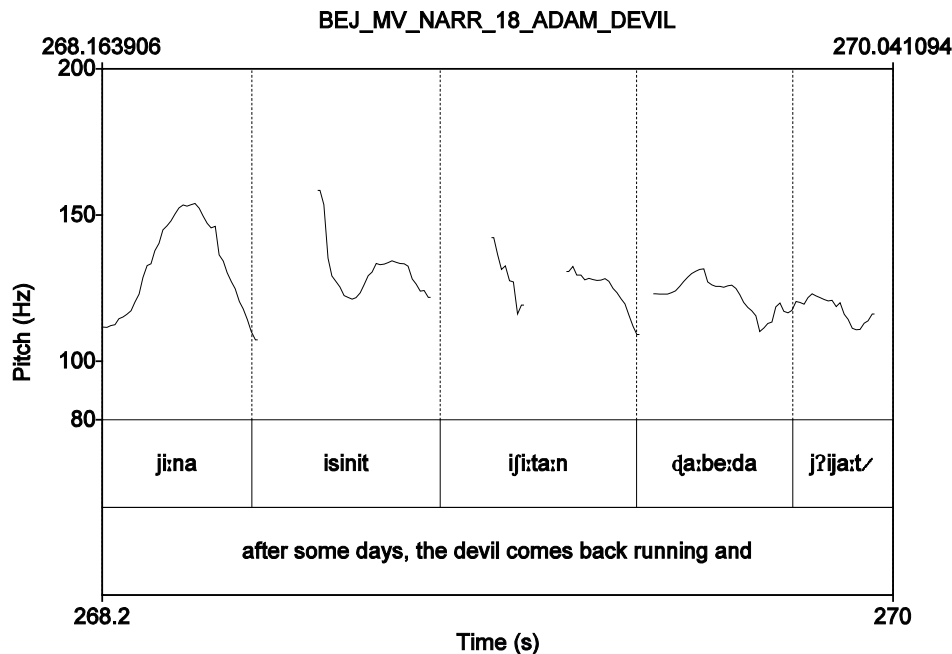
As regards the previous context of a reported speech whose quotative frame is limited to the quotative verb, be it a narrative section or a previous quoted speech, it is most often set off from the speech report itself, namely in 98% of the 308 examples without an overt subject or lexical addressee at the onset of the quotative frame. Such a high percentage clearly indicates that the prosodic break is a marker of the onset of a quotation, even if not, of course, exclusive to this utterance type. Among these examples, 73% direct

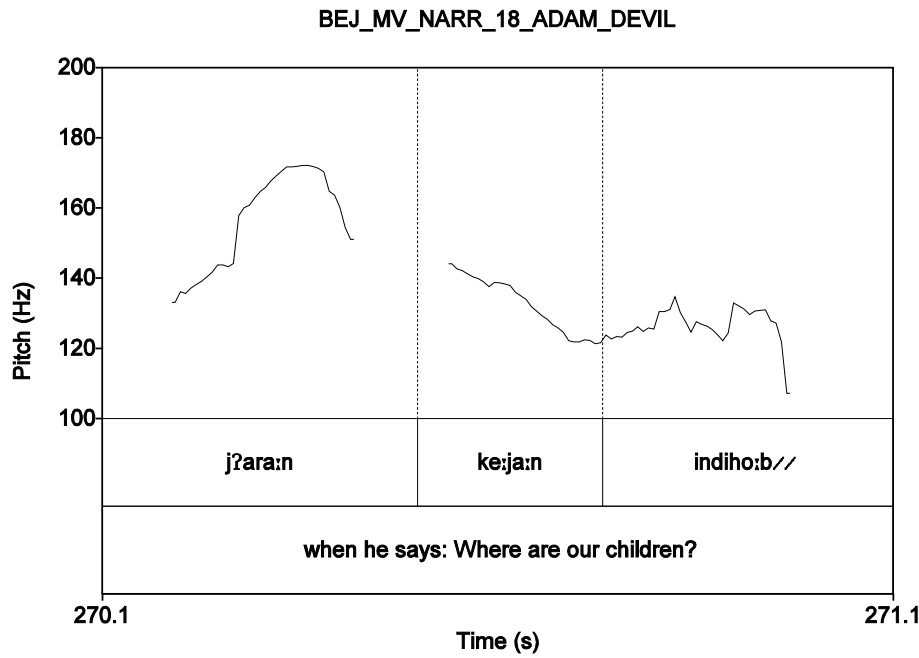
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<sup>7</sup> The verb ‘say’ in the 3<sup>rd</sup> person plural of the Perfective *en*, is very frequently used as a discourse marker which signals the end of a paratone, be it a reported speech or not. It is used even after a quotative verb. The literal translation ‘they said’ has been retained throughout the examples.

speech reports are separated from the previous utterance by a pause (10% short, 51% medium, 39% long), and among the 27% remaining quotes, 34 are preceded by a major boundary with a terminal break, and 47 by a minor boundary, with a continuative contour. In this last instance, the previous IU always contains a syntactically dependent clause, either temporal or causal, a coordinated clause with a finite verb, or a converbal clause. But it should be noted that these clause types may also be followed by major (final) boundaries or pauses of various length. Below is a typical example with a first coordinated clause with a continuative contour and a rush on the last word of the first IU, followed by the quote which starts louder and at a higher pitch (an increase of 50 Htz).

- (10) *jɪn-a*      *i-sini = t*      *i = fɪ:ta:n*  
 day-PL      3SG.M-wait\PFV=COORD      DEF.M=devil  
                  *ɖa:b-e: = da*      *jʔ-i = ja:t*      /  
                  run-CVB.SMLT=DIR      come-AOR.3SG.M=COORD  
*j = ʔar = a:n*      *ke:ja:n*  
 DEF.M=child\PL=POSS.1PL.NOM      be\_where-PFV.3PL  
                  *i-ndi = ho:b*      / 374  
                  3SG.M-say\IPFV=when  
 ‘after some days, the devil comes back running and when he says: Where are our children? ...’ (BEJ\_MV\_NARR\_18\_Adam\_devil\_298-299)





### 3.2.3. *Speech report, subject and addressee of quotative frame*

The discussion of the prosodic integration cline of direct speech reports and their quotative frame in Beja would not be complete without mentioning its other elements, namely the subject and the recipient addressee, which only cooccur once in the corpus, but not in the canonical word order.

*3.2.3.1. Subject.* In the Beja data of the CorpAfroAs project, the syntactic subject of the quotative verb is rarely overtly expressed as an independent lexical or pronominal item: out of the 317 examples, only 6 have an overt lexical or pronominal subject. In all 6 cases, the subject is set off from the reported speech by prosodic boundaries, five times by a pause, and once by a minor boundary.

Because non finite verb forms contain a subject index coreferent with the lexical or pronominal subject and/or because the previous context is usually enough to make it clear who is talking, it seems the narrator mainly feels necessary to clarify which character is the author of the quote in cases of a possible contextual ambiguity, as is the case in three of the examples. For instance in (11) below, which occurs in a complex narrative setting

involving several characters, Adam, Lion, Dog, and the other animals, it cannot be assumed from the previous context which of them is the author of the speech report, and as it is not the last mentioned, the narrator needs to specify who is talking. In the context, the narrator hesitates several times before choosing the correct character, and pauses after he has found it, before uttering the speech report. Speech processing thus also plays a role in the separation of the subject from the speech report.

- (11) *ti = dhanini*                      *kass = t = a:*                      / 509  
 DEF.F=animal\PL                      all=INDF.F=POSS.3PL.NOM  
*a:n*                      *hinin*                      / *BI\_1190*  
 PROX.PL.M.NOM                      1PL.NOM  
*o:n*                      *o: = tak*                      *ni:-fibib*                      / 335  
 PROX.SG.M.ACC                      DEF.SG.M.ACC=man                      AOR.1PL-look  
*ni:-m-dir*                      *ejadna*                      *en*                      //  
 FUT.PL-RECP-kill                      say\IPFV.3PL                      say\PFV.3PL  
 ‘all the animals say: We are going to observe this man and fight against him,  
 they said.’ (BEJ\_MV\_NARR\_18\_Adam\_devil\_191-197)

In addition to disambiguation, the subject may have a pragmatic function of topic which in Beja is prosodically followed by a continuing or a terminal break followed or not by a pause. Example (12) below is a dialogue between two characters, Fox and Crow, and Crow’s quoted speech follows that of Fox. The subject is not integrated in the quote and is set off prosodically by both a medium pause of 246ms and syntactically by the dependent clause which describes the setting of the conversation (and does not belong to the quotative frame). The subject here functions pragmatically as a contrastive topic:

- (12) *ont?a*    *k<sup>w</sup>ik<sup>w</sup>?aj*    // 246  
 now                      crow  
*i = sikka-i*                      *hire:r-e:*                      *a-harag<sup>w</sup>i*  
 DEF.M=road-GEN.SG                      walk-CVB.SMLT                      1SG-be\_hungry\PFV  
    *i-ndi = je:b*                      *o: = dor*                      /  
    3SG.M-say\IPFV=REL.M                      DEF.SG.M.ACC=time  
 ‘Now, Crow, while walking on the road, when it said: I am hungry...’  
 (BEJ\_MV\_NARR\_16\_Prophet\_Fox\_Crow\_165-167)

The subject of a speech report can also be pragmatically expressed as an afterthought topic shift, which occurs in a non canonical position, after the

(13) *t-harag<sup>wi</sup>=je:k* *so:ja=he:b* / 151  
 2SG-be\_hungry\IPFV=if CAUS-say\IMP.SG.M=OBJ.1SG  
*ti-ndi* *en* // 553  
 3SG.F-say\IPFV say\PFV.3PL  
*lha:we:=t* //  
 fox=INDF.F  
 ‘If you are hungry, tell me! Fox said, they said.’  
 (BEJ MV NARR 16 Prophet Fox Crow 159-163)

(14) *o: = jas-i = d* *hus ak-a*  
 DEF.SG.M.ACC=dog-GEN.SG=DIR voice be-IMP.SG.M  
*ejadna en* //  
 say\IPFV.3PL say\PFV.3PL  
 ‘they tell the dog: Shut up!, they said.’  
 (BEJ MV NARR 18 Adam devil 221)

21

‘when he tells the mother: Gosh I saw these things that happened to your son...’ (BEJ\_MV\_NARR\_13\_grave\_073-075)

- (16) *lha:we:* = *t-i* = *dha* // 950  
 fox=INDF.F-GEN.SG=DIR  
*lha:we:* = *t* / **BI\_624**  
 fox=INDF.F  
*jhak-a* *ti-ndi* *en*  
 get\_up-IMP.SG.M 3SG.F-say\IPFV say\PFV.3PL  
 ‘it says to Fox: Fox, get up! they said...’  
 (BEJ\_MV\_NARR\_16\_Prophet\_Fox\_Crow\_203-207)

To conclude, in Beja, the direct speech reports are most often prosodically marked with respect to the quotative frame, but there is a radical asymmetry between the onset of the quote and its end which integrates the quotative verb in the same IU as the (end of) the speech report in roughly  $\frac{3}{4}$  of the examples. Furthermore, there is almost always a prosodic boundary at the onset of the direct speech report which is a clear prosodic cue of the beginning of a quote. Such a pervasive prosodic pattern might be linked to the syntactic properties of the language and to physical constraints, i.e. the SOV word order, the embedding of the quote within the quotative frame whose initial part is most often missing, the absence of a complementizer, and the fact that the short quotative verb most often occurs at the end of the speech declination. Only a comparative work with other languages which share this combination of typological features would confirm or reject the hypothesis. The comparison with Dolakha Newar could only be partial because even if also an SOV language, it does not share all the above mentioned features.

## 4. Zaar quotatives

### 4.1. Elements of syntax and prosody

Zaar, a South-Bauchi Chadic language spoken in Nigeria, is strongly SVO, except in some specific morpho-syntactic contexts: it is obligatorily SOV with pronominal direct objects, and optionally with nominal direct objects

when the verb is in the Continuous tense. The linear order is the only cue that distinguishes between S and O. It is also the only cue that distinguishes between the recipient and the direct object of a ditransitive verb, among them the quotative verb *wul* ‘say’ (often reduced to [wû]); the recipient precedes the direct object. Recipients of other transitive verbs are marked by a special morpheme.

In complex sentences, relative and complement clauses follow their nominal and predicative heads respectively. They may or may not be introduced by various non specific markers and complementizers.

Zaar makes use of direct and indirect speech reports which are both introduced by specific complementizers.<sup>8</sup> The whole quotative frame, including the quotative verb *wul* ‘say’, precedes the quoted speech which is introduced by one of the two complementizers (termed “Opener” in Caron’s (2012) terminology), *tu* and *wéj*, the latter being a borrowing from the Hausa evidential particle.

As described in Caron (2012) Zaar is a three-tone language<sup>9</sup> with no phonologized downstep and with stress overriding declination, stress meaning here a prosodic emphasis, i.e. the relative prominence of syllables within a word. The relative height of tones within an IU is linked to stress. Emphatic stress in Zaar is used to underline the rhematic status of lexemes. Initially intonemes, i.e. a set of distinct intonation contours associated with particular functions, are characterized by downstep or upstep, i.e. there is a noticeable change in the register of an IU compared to the preceding one. Both upstep and downstep are associated with specific functions: topicalization, Y/N questions, emphasis of adverbials and emotional

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<sup>8</sup> Direct reported speech introduced by a complementizer is often called “semi-direct speech”.

<sup>9</sup> This paragraph is extracted from Caron (2012: 43-45), where further details and examples are provided.



statements for the former; parenthesis, comments following an (upstepped) topic, and contrastive focus for the latter. Final intonemes are either Falling, Rising, Continuing, and High-Falling. The Falling intoneme corresponds to canonical assertions and WH-questions. The Rising intoneme is mostly associated with Y/N questions and exclamations. The Continuing intoneme, which only occurs at the end of minor units, cancels declination, is often associated with lengthening and induces the only (rare) cases of plateau realization of a flat tone. It is often associated with topicalizing morphemes. The Rising-Falling intoneme appears as a sharp downward fall preceded by a smaller rise. It is systematically associated with emphasis on negation, ideophones and assertion particles.

Direct reports are more frequent than indirect ones in the CorpAfroAs data: for a total of 125 speech reports, 66% are direct ones, and 44% indirect ones and each type is evenly distributed between conversations and narratives which represent respectively 48% and 52% of the total duration of the Zaar corpus.<sup>10</sup> The complementizer *tu* is more frequent than *wéj* (106 vs 20), which is limited to the conversation register (where code switching with Hausa is also more frequent). The use of the quotative verb is not compulsory, and the complementizer may be used on its own, *viz.* 20 examples with *tu* and 13 with *wéj*, both with direct and indirect quotes. *wéj* may combine with *tu*, but this occurs only once in the CorpAfroAs data. Zaar quoted speech is thus always signaled segmentally by at least a complementizer, and is thus syntactically marked. But note that in Zaar like in Beja, direct speech reports may also occur without a quotative frame, but that this is never the case for indirect speech reports.

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<sup>10</sup> 19 speech reports had to be left aside because of overlaps with another speaker which made the data unclear, either segmentally or prosodically.

## 4.2. Prosodic integration cline in Zaar

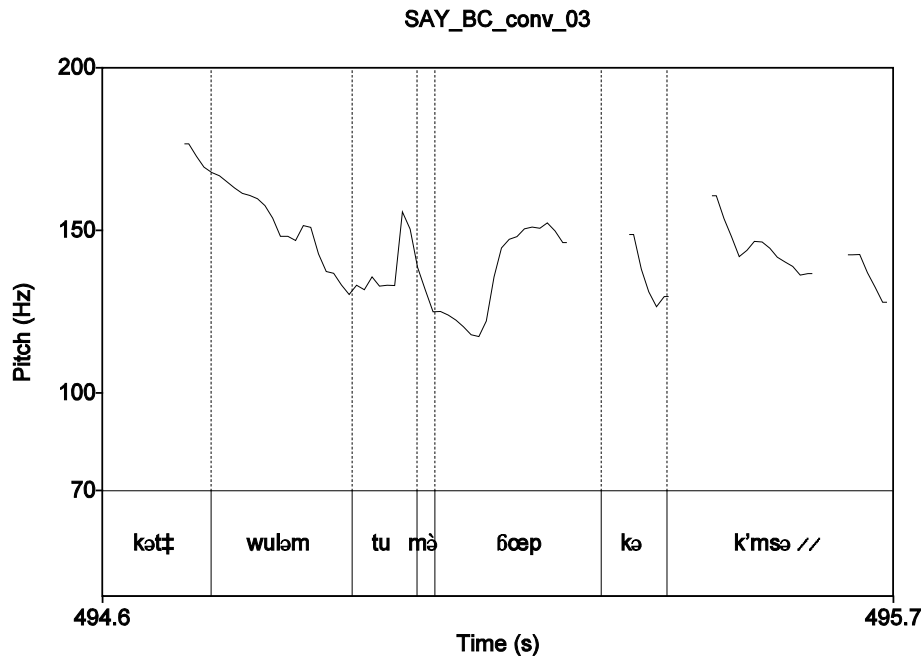
### 4.2.1. Speech reports and quotative frames

The prosodic integration of the direct speech reports within the same IU as the quotative frame is less frequent in Zaar than in Beja. The degree of the prosodic integration of the (onset of) the speech reports within the previous quotative frame varies with the type of constituents of the quotative frame.

When the quotative frame contains both *wul* ‘say’ and the complementizer *tu* the speech reports (or their first IU in case they are produced over several IU-s) are prosodically integrated in almost 40% of the direct and indirect speech reports (41/106), but less frequently for indirect speech (one third) than for direct ones (half). When the speech reports are set off from the quotative frame, the prosodic boundary occurs always after the complementizer *tu*, except once (see below ex. 21). Prosodic boundaries may be a major or a minor break, followed or not by a pause of any size. Below are examples for direct (ex. 17-18) and indirect (ex. 19-20) speech reports.<sup>11</sup>

- (17) (direct speech; quotative frame and speech report in 1 IU)
- |              |              |                       |               |    |
|--------------|--------------|-----------------------|---------------|----|
| <i>kə́tá</i> | <i>wuləm</i> | <i>tu</i>             | <i>mə̀</i>    |    |
| 2SG.NOM.REM  | say=1SG.ACC  | OPN                   | 1PL.NOM.SBJV  |    |
|              |              | <i>ḁúp kə́ kím̩sə</i> | //            |    |
|              |              | <i>ḁúp = kə́</i>      | <i>kím̩sə</i> | // |
|              |              | wait_for=2SG.ACC      | Kimse         |    |
- ‘You told me: we wait for you in Kimsə.’ (BC\_SAY\_CONV\_03\_SP2\_263)

<sup>11</sup> Because of the tone differences between the surface and underlying tones, the phonetic transcription is also provided for Zaar.



(18) (direct speech; quotative frame and speech report in 2 IU-s)

*è: jâ:m mjá: sũ:ŋ wúlɣə tu:: /*

*è: já:ní mjá: sũ:-ən wul=kə tu /*

yes 3SG 1SG.NOM.IPFV want-PROX say=2SG.ACC OPN

*ɖaŋ ka ɬə:fí kó: /*

*ɖan ka ɬə=fí kó: /*

as 2SG.NOM.FUT go=3PL.ACC or

*bà: ʔík ŋâ: nə lă:n mə tájá:*

*bà: ʔík ŋâ: nə la:-ən mətájá:*

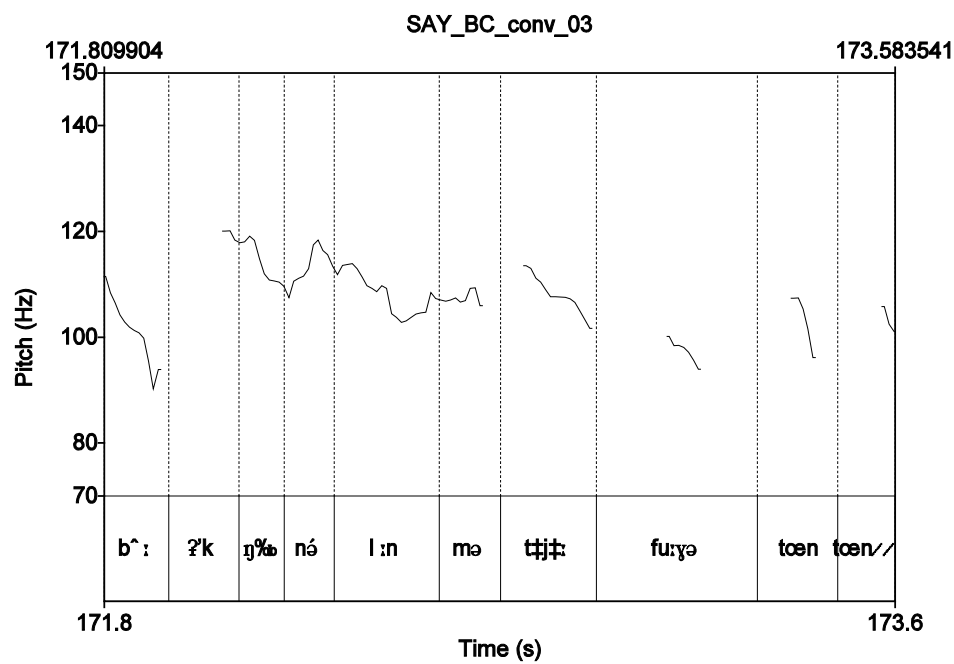
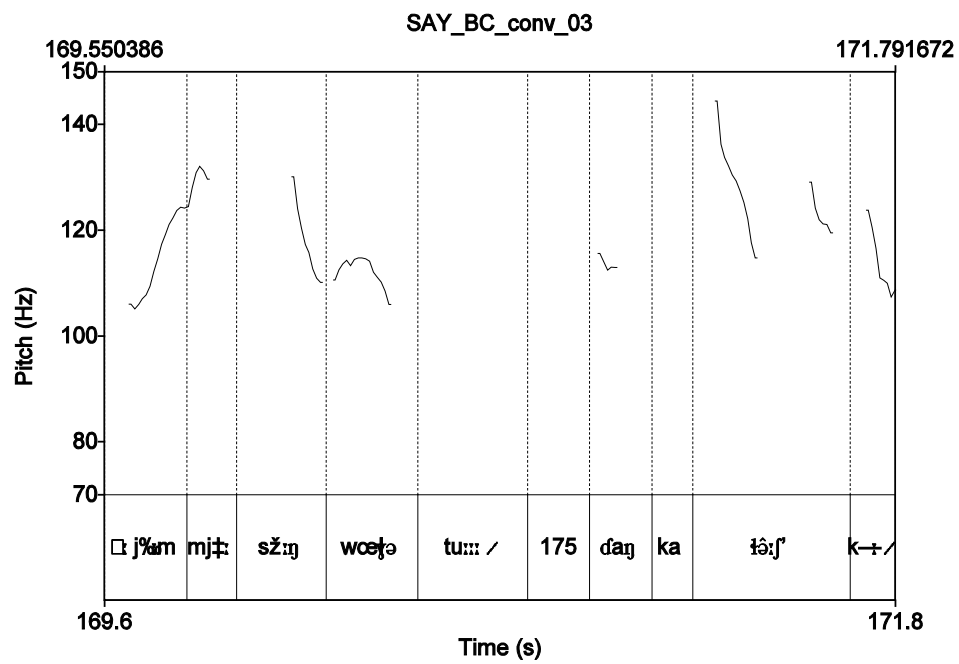
NEG1 thus nASS for work-PROX 1SG.NOM.IPFV.REM

*fũ:ɣə tún tún //*

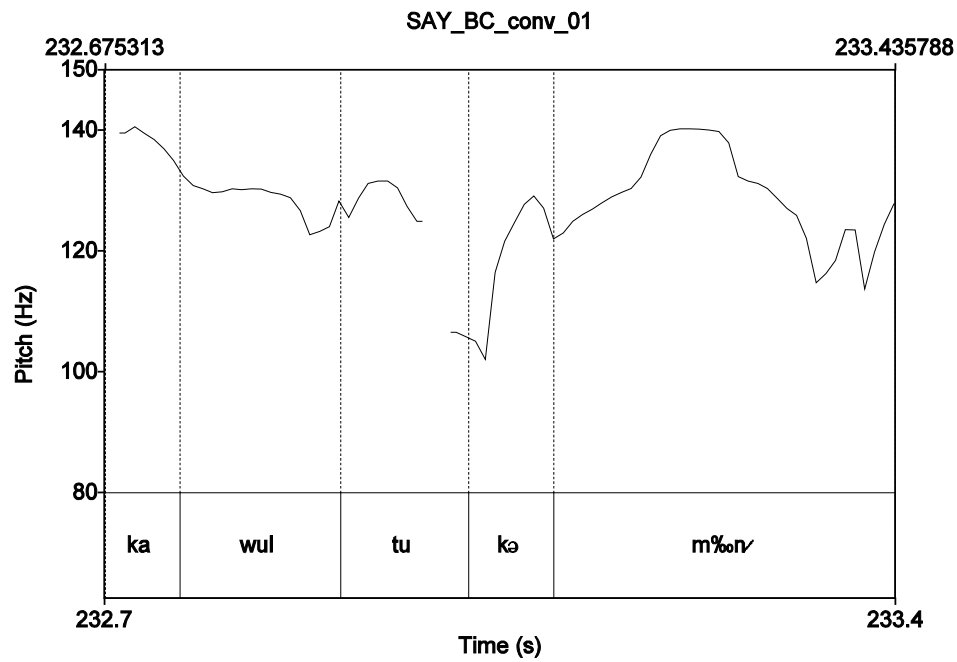
*fũ:=kə tún tún //*

tell=2SG.ACC since since

‘That’s why I want to tell you: When you go, isn’t like this, for the work that I have been telling you since?...’ (BC\_SAY\_CONV\_03\_SP2\_118-120)



- (19) (indirect speech; quotative frame and speech report in 1 IU)  
*ka wu tu kə mân /*  
*ka wul tu kə mân /*  
 2SG.FUT say OPN 2SG.AOR come  
 'you will say you have come...' (SAY\_BC\_CONV\_01\_SP1\_117)



(20) (indirect speech; quotative frame and speech report in 2 IU-s)

*kúma á wû tu /*

*kúma á wul tu / 451*

too 3SG.AOR say OPN

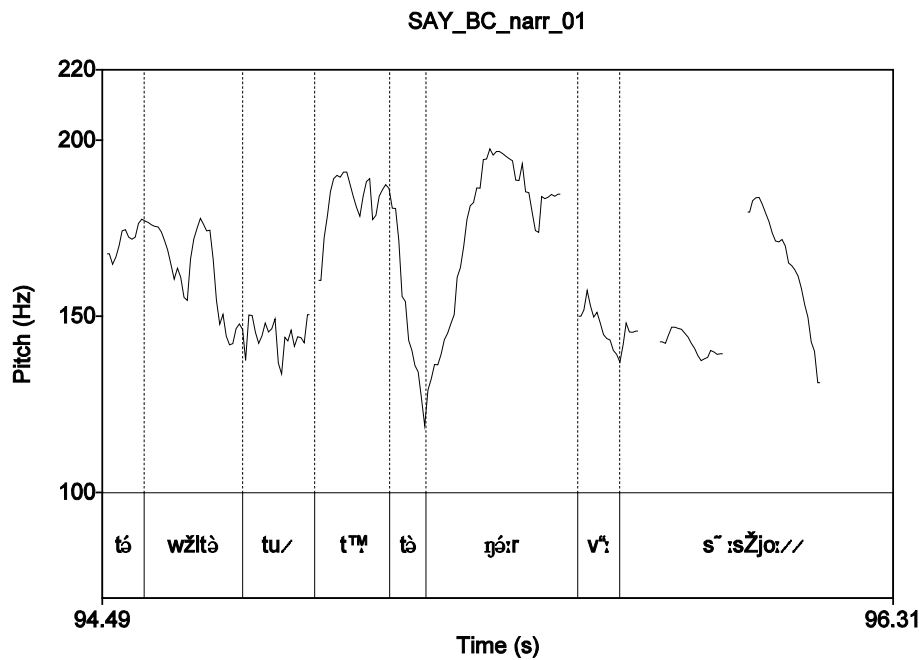
*ʔá: sú: tə vjáj dɑ:mí /*

*ʔá: sú: tə vjáj-ú dɑ = mí /*

3SG.IPFV want 3SG.SBV spend\_day-DEF at=1PL.ACC

‘And he said he wants to stay in our village’

(BC\_SAY\_Conv03(Boys)\_SP1\_556-558)



#### 4.2.2. Prosodic integration of the complementizers

4.2.2.1. *The complementizer tu.* As shown in the above examples, the complementizer *tu* is included in the quotative frame; it thus marks in itself the onset of the speech report, and Zaar, contrary to Beja, does not need to have recourse to prosodic means for this purpose. This is probably one of the syntactic reasons why Zaar has more freedom regarding the prosodic integration or non-integration of the speech report itself within the quotative frame.

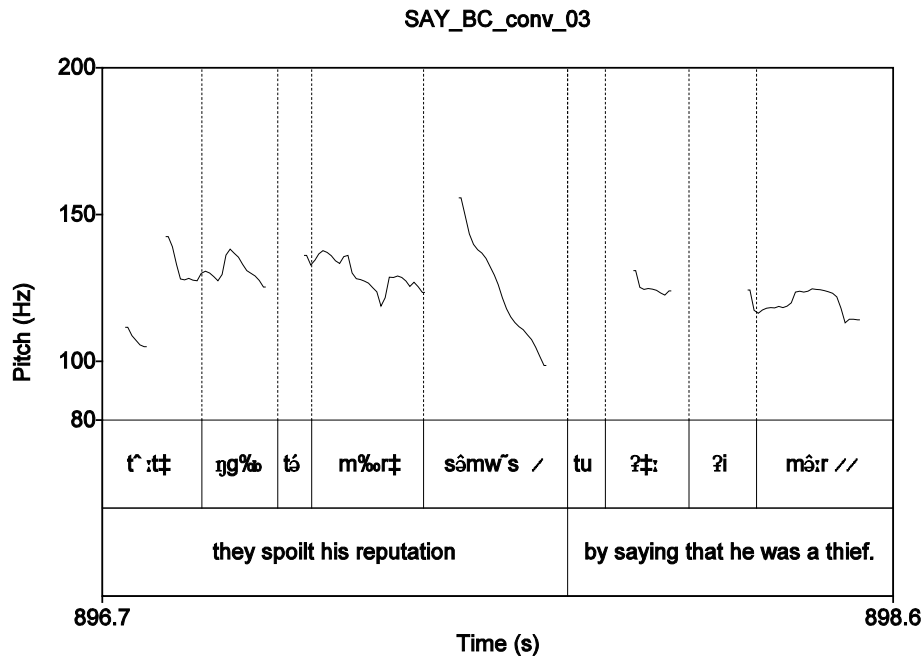
Below is the sole example where the complementizer is prosodically integrated in the direct speech report instead of the quotative frame, from which it is set off by a medium pause of 295ms. The wrestling of the dog is mentioned seven times before ex. (21). It seems the narrator hesitates and is repeating the same action in various syntactic ways to give himself time to remember the next line of the tale. Difficulties in speech processing here may explain this unusual position of the IU boundary.

- (21) *mbārgəptəŋ wul* / 295  
*mbārgəptə wul* /  
hyena say

*tu tō: t̪ə nòm t̪ə kádī //*  
*tu tō: t̪ə nom t̪ə kádī //*  
 OPN well 3PL.SBJV take with dog  
 ‘Hyena said: Well, let him wrestle with Dog.’  
 (SAY\_BC\_NARR\_03\_SP1\_482-484)

When the quotative frame is reduced to the complementizer *tu*, both in direct and indirect quotes, it is systematically integrated within the same IU as (the onset of) the quoted speech as in (22) where it expresses in addition the manner in which the previous utterance is accomplished. This example echoes Noonan’s (2006) findings about the various semantic functions of direct speech reports in Chantyal a Tibeto-Burman language, adding one more meaning to his list which consists of reason and causation, purpose and motivation, intention, attendant circumstance, and the listing of alternative.

- (22) *tà:tá ngá: t̪ə m̪ará s̪əm wòs /*  
*tà:tá ngá: t̪ə m̪ará s̪əm = wos /*  
 3PL.NOM.PFV.REM start 3PL.NOM.AOR spoil name=3SG.GEN  
*tu t̪á: t̪i m̪ə:r //*  
*tu t̪á: t̪i m̪ə:r //*  
 OPN 3SG.NOM.IPFV eat theft  
 ‘they spoilt his reputation by saying that he was a thief.’  
 (BC\_SAY\_CONV\_03\_SP2\_458-459)



The sole exceptions occur in two utterances, one with an inceptive auxiliary verb, and the other with a lexical subject in the quotative frame: *tu* like when used with a quotative verb is integrated within the quotative frame (ex. 23 and 24).

- (23) *tətà ngúp tu ká /*  
*tətà ngúp tu ká /*  
 1PL.REM start OPN disapproval  
*ka dú bó:lǐǵǎn //*  
*ka dú bó:l-ú: ɲa: kəŋ //*  
 2SG.FUT beat football-DEF nASS NEG2  
 ‘they started (to say): What! won't you play football?’  
 (BC\_SAY\_CONV\_3\_SP1\_674-675)

- (24) *bàsàjì gòs tu / 783*  
*bàsàjì gòs tu /*  
 Zaar 3SG.GEN OPN  
*ìndán in kjá: kára ngətnđi /*  
*ìndán in kjá: kára ngətn-đi /*  
 if if 2SG.COND beg thing-DIR  
 ‘Zaar people (say) that: if you beg for something...’  
 (SAY\_BC\_NARR\_02\_SP1\_443-445)

As far as the preceding clause is concerned, be it a narrative section or another speech report, *tu* is never prosodically integrated within it.



4.2.2.2. *The complementizer wej*. The marker *wěj*, which introduces both direct and indirect discourse, on its own or in addition to *wul tu* or *tu*, only occurs in two of the three conversations, but not in the narratives. 20 tokens are introduced by *wěj*. In the 5 tokens where the quotative frame consists of *wul tu wej* the quote is in a different IU than the quotative frame, except once. Similarly to *tu*, when *wěj* stands alone (13 ex.), it is most often integrated in the same IU as the speech report (11 ex.)

- (25) *kə́tá wu tu wej /*  
*kə́tá wul tu wej /*  
 2SG.REM say OPN OPN  
*nə nú:γəŋ átâjá: sop /*  
*nə nú: = kən átâjá: sop /*  
 COP1 who =COP2 3SG.REM.IPFV court  
*du:kjô: ŋǎ:n //*  
*du:kjâ = o: ŋa: háŋ //*  
 Dukiya=ASS nASS NEG2  
 You were wondering: who is dating Dukiya?  
 (BC\_SAY\_Conv03(Boys)\_SP1\_925-927)

3.2.2.3. *End of quotes*. The end of both direct and indirect speech reports is systematically set off from the following IU by a major boundary, followed or not by a pause, very rarely by a minor boundary.

3.2.2.4. To conclude, in Zaar there is no major prosodical differences between direct and indirect speech reports, except that direct reports are more often integrated with the quotative frame than indirect ones (50% vs 33%). As the use of a complementizer systematically marks the onset of a speech report the prosodic resources need not be used for this purpose allowing more variation in the prosodic integration cline of the speech reports within the quotative frame than in Beja. The sole major distinction in Zaar is not linked to direct or indirect speech, but to the use of a quotative verb in the quotative frame: if the quotative verb is present, the

complementizer always belongs to the same IU as the quotative frame; if not, the complementizer belongs to the same IU as the speech report.

## 5. Juba Arabic quotatives

### 5.1. *Elements of syntax and prosody*

Juba Arabic, an expanded Arabic based pidgin spoken in South Sudan with hardly any morphology, is predominantly SVO. The linear order is the only cue that distinguishes between subject and object arguments. The basic constituent order may become SOV in the presence of contrastive topicalisation. Indirect objects follow direct objects, and the recipient of a ditransitive verb is signaled by the use of the dative preposition *le*. It often precedes the direct object.

Relative clauses are head external and are introduced by an invariable relative marker *al* which follows the head, but in basilectal registers the relative marker is often missing. Headless relative clauses are introduced by the same marker. Subordinate complement clauses usually follow the primary verb directly, i.e. without a complementizer. Speech reports have the same pattern as complement clause and are introduced by any of the three general quotative verbs *wonosu*, *kelim*, and *gale*. In addition, the verb *gale* ‘say’ may function as complementizer with verbs of speaking and thinking, including after the verb *gale* itself. Nothing can intervene between the verb and the complementizer except in acrolectal varieties, where the recipient may optionally separate the verb of speaking and the complementizer. In basilectal varieties the dative marker *le* is often omitted.

Juba Arabic is a toneless language where stress, realized as a high pitch, is distinctive both lexically and grammatically. Usually, stress falls on the first

heavy syllable of a word or on the first syllable of words with no heavy syllables. In a few cases, stress is lexically distinctive: *'saba* ‘seven’ vs. *sa'ba* ‘morning’. In verbs, stress distinguishes the active voice from the passive voice for verbs ending in *-u*: *'katulu* ‘kill’ vs. *katu'lu* ‘be killed’. Ambitransitive verbs always have a final stressed syllable. Stress on the penultimate syllable in verbs ending in *-u* is associated with deverbal nominal forms: *'kuruju* ‘cultivate’ vs. *ku'ruju* ‘cultivation’.<sup>12</sup>

In declarative utterances, pitch variation is not very important in the speech of the four male speakers of the CorpAfroAs data. Continuing terminal contours (minor breaks) are either level, with possible lengthening of the last vowel, or slightly rising. Final terminal contours are falling except in questions where the most common contour is fall-rise or rising, more rarely rise-fall or high, preceded by a rather flat contour on the previous syllables of the IU. Exclamative utterances have a sharp rising final pitch, and the IU may in addition start with an important rising pitch reset. Very long IU-s uttered on a rapid tempo lasting up to some 3 seconds are not infrequent and can include very long stretches of speech of more than 25 syllables (see ex. 26 below).

The 46mn of the CorpAfroAs corpus of Juba Arabic consists of 40% of narratives and 60% of conversations. The data shows that speech reports are a much more frequent rhetorical strategy in narratives than in conversations:<sup>13</sup> Out of a total of 70 speech reports, 77% occur in narratives, against only 23% in conversations.

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<sup>12</sup> The above three paragraphs are a summary of Manfredi & Petrollino (2013).

<sup>13</sup> One of our reviewers rightly points out that some conversational genres incorporate narratives within them, and it is possible that these would show higher levels of quoted speech. The other reviewer questions the fact that conversations including direct speech reports could be regarded as a rhetorical strategy, at least in some cultures.

Juba Arabic has both direct and indirect speech reports. The vast majority of the speech reports are direct ones (66/70), of which only 9 are introduced by the grammaticalized complementizer *gale*. The 4 indirect speech reports are just signaled by a deictic shift to the perspective of the narrator; none of them is introduced by the complementizer.

## *5.2. Prosodic integration cline in Juba Arabic*

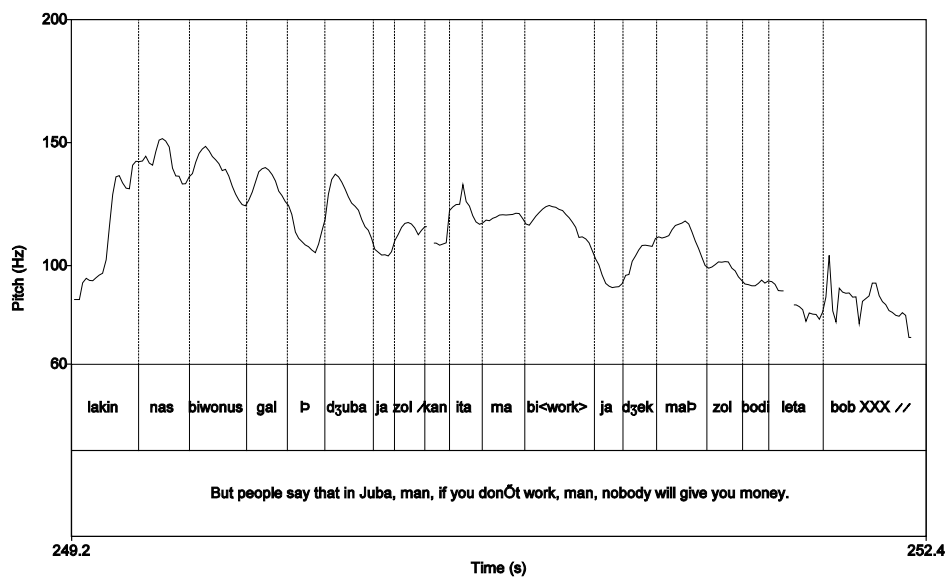
Juba Arabic presents another typological profile than Beja and Zaar: it is the sole language of our sample where all speech reports, direct and indirect, are integrated (fully or partially if produced across multiple IU-s) within the same IU as the quotative frame. The quotative frame itself is most often set off prosodically from the previous utterance, but in a few rare instances it is part of the same IU. Like in Zaar, the end of quotes, a mirror image of the onset of quotes in Beja, is systematically set off from the following discourse or narration either by a pause (53 examples), or a major (13) or minor boundary (1) without a pause. The 3 remaining examples are truncated utterances for which it is not possible to tell whether there is a terminal or a continuing boundary.

### *5.2.1. Intonation units of direct speech reports*

The prosodic integration of direct speech reports varies from the total length of the quote to just its initial word. As mentioned above, the Juba Arabic speakers (all males) of the CorpAfroAs corpus may have extremely long IU-s in terms of duration and number of syllables, enfolding several syntactic clauses, including speech reports with their quotative frames. Ex. (26) below, with the grammaticalized complementizer *gale*, lasts over 3 seconds and contains no less than 19 words (with 26 syllables actually pronounced). The pitch trace clearly shows the slow prosodic declination which starts with the subject of the quotative frame, *nas* ‘people’ and ends on a low pitch on the final syllable of the last word of the quote. Thus if Genetti’s (2011:

72) claim that speech reports have to be “necessarily shorter” in order to be integrated within the same IU as the quotative frame applies to Dolakha Newar, it is certainly not the case for Juba Arabic and her observation cannot be considered as a prosodic universal.

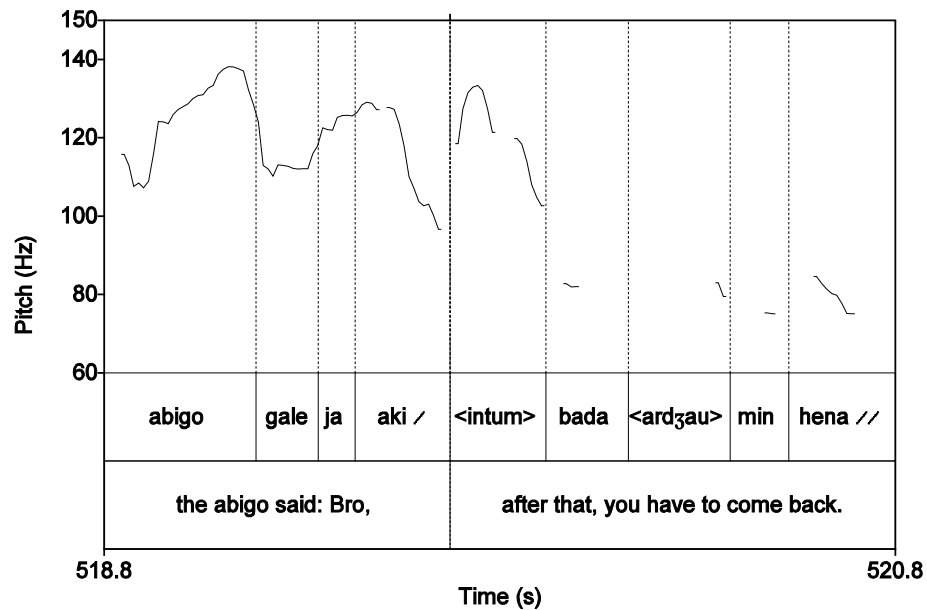
- (26) *lákin nas bi=wónusu gále fi dzúba ja zol*  
 but people IRR=talk COMP in Juba VOC man  
*kan ita ma <bi=work> ja dʒek máfi*  
 if 2SG NEG IRR=work VOC man EXS.NEG  
*zol bi=wodí le ita bob //*  
 man IRR=give to 2SG money  
 ‘But people say: In Juba, man, if you don’t work, man, nobody will give you money.’ (PGA\_SM\_CONV\_1\_SP1\_155)



At the other end of this extreme case, are the direct speech reports whose first constituent is the sole element included within the same IU as the quotative frame. 19 direct speech reports are of this type; most of them start with a vocative element (9), a discourse particle (4) or an exclamation word (4); there is also one instance with a pronoun, and one with an adverb. (27) below is one of these speech reports, with a minor boundary and a pitch reset at the beginning of the next IU.

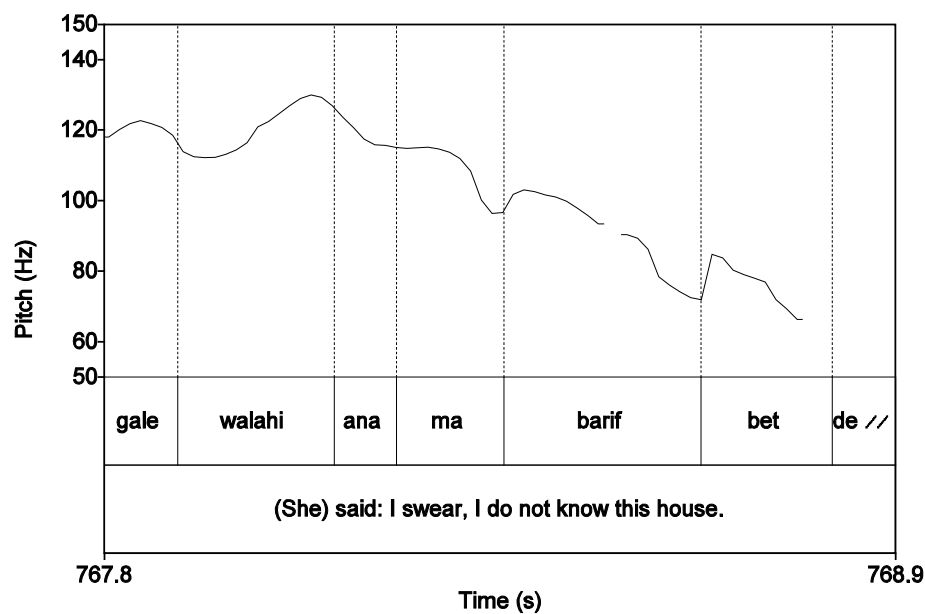
- (27) *<abigó> gále ja áki /*  
 Abigo say VOC bro  
*<intum> badá <a-rdʒaʃ-u> éna //*  
 2PL afterwards IMP-come\_back\IPFV-3PL here

‘Abigo said: Bro, after that, you have to come back.’  
(PGA\_SM\_NARR\_2\_SP1\_544-545)



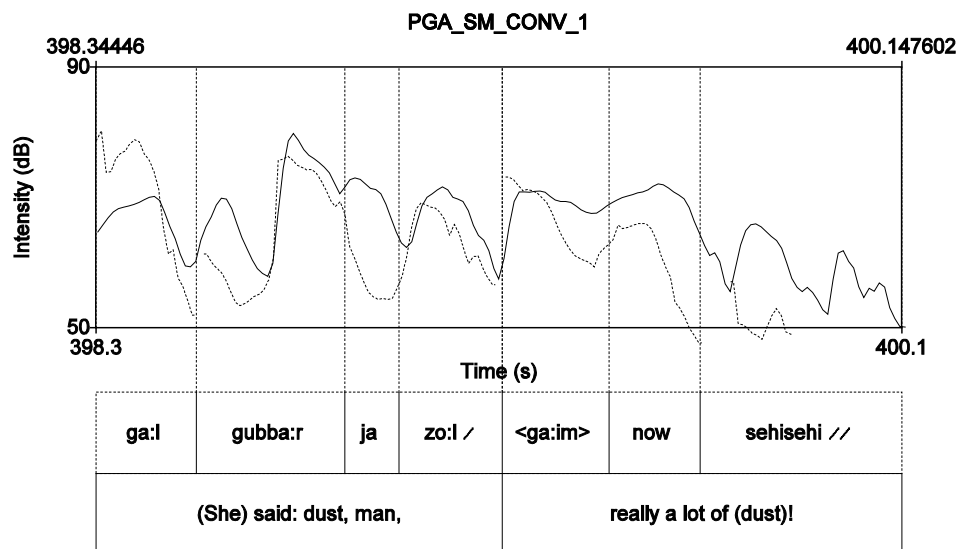
Variations in pitch are often not very important in direct speech reports which most often follow the natural declination of speech, even in exclamative contexts as in (28) below, where the pitch increase at the onset of the speech report is of only 10 Htz as compared with the quotative verb.

- (28) *gále waláhi ána ma bi=árfu bet de //*  
say by\_god 1SG NEG IRR=know house PROX.SG  
‘(She) said: I swear, I don’t know this house.’  
(PGA\_SM\_CONV\_2\_SP1\_533)



More important pitch variations may occur in exclamative contexts, together with a slight increase in loudness at the beginning of the speech report as in (29) below where the stressed syllable of *gubár* is 10 decibel higher than the previous vocative elements as shown on the intensity solid line.

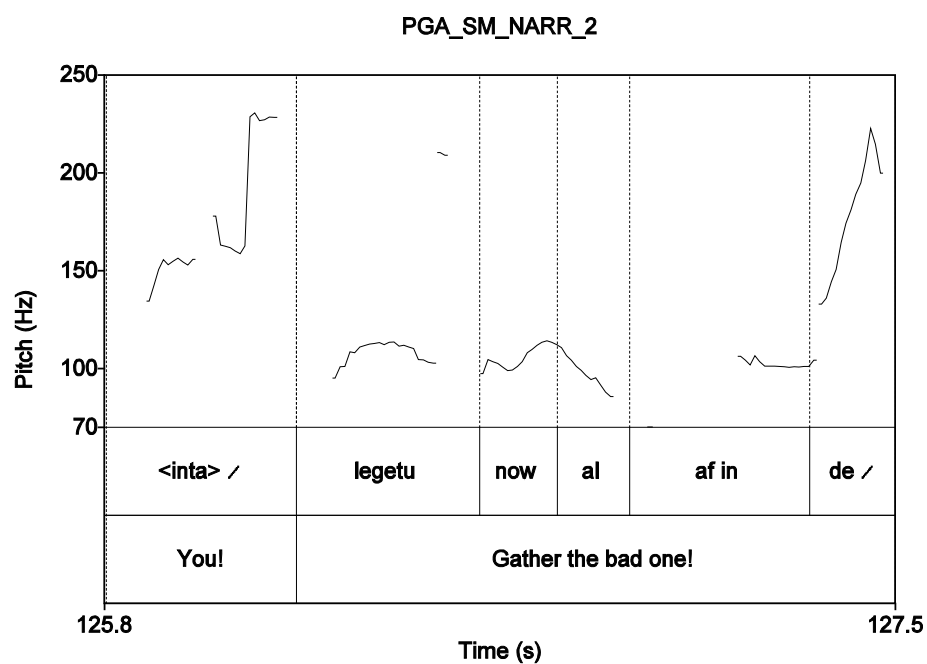
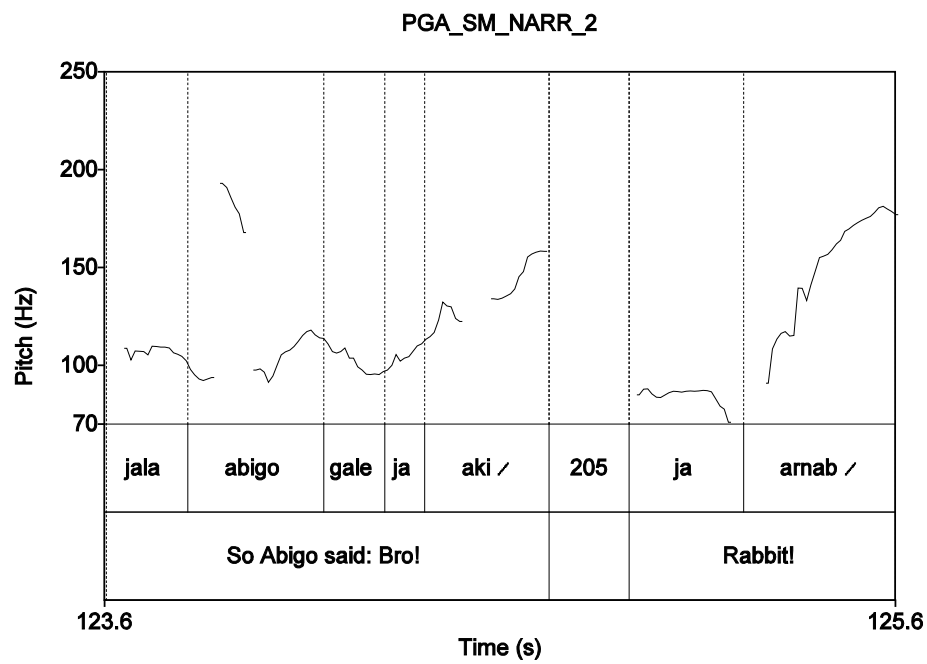
- (29) *gále gubár ja zol /*  
 say dust VOC man  
 <*ga:im*> *now se hí~se hí //*  
 get\_up\PTCP.ACT.SG.M type right~right  
 '(She) said: dust, man, really a lot of (dust)!'  
 (PGA\_SM\_CONV\_1\_SP1\_258-259)



Typical of direct speech reports which contain exclamative or vocative words and imperative verbs is an isochronous pattern which includes the succession of pitch rises at the end of each IU, far above the average pitch of the speaker as in (30), followed or not by a pause:

- (30) *jála* <*abigó*> *gále* *ja* *áki* / 205  
 then Abigo say VOC bro  
*ja* *árnab* /  
 VOC rabbit  
 <*inta*> /  
 2SG.M  
*légetu* *now* *al* *áfin* *de* / 261  
 gather type REL rotten PROX.SG.M  
 'So Abigo said: Bro! Rabbit! You! Gather the bad one!'  
 (PGA\_SM\_NARR\_2\_SP1\_140-146)





The recipient argument of the quotative verb is rarely expressed in the corpus, and occurs only twice, each time with the direct speech report introduced by the complementizer *gale*. In both examples (with one lexical and one pronominal recipient) the dative preposition is not used, and the

beginning or the entire speech report is also integrated in same IU as the quotative frame.

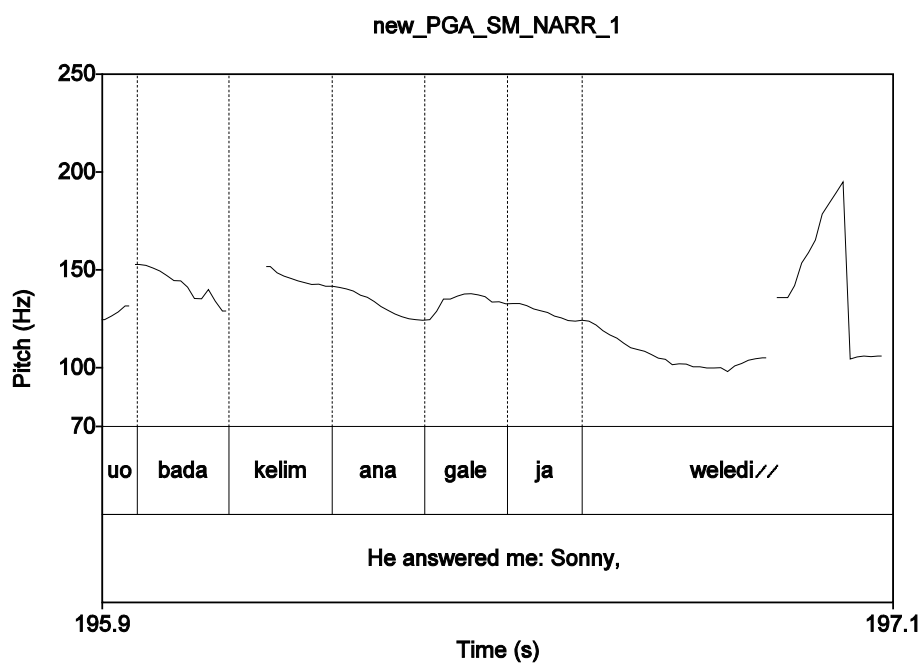
(31) *úo báda kélim ána gále ja weledí // 245*  
 3SG start speak 1SG say VOC sonny

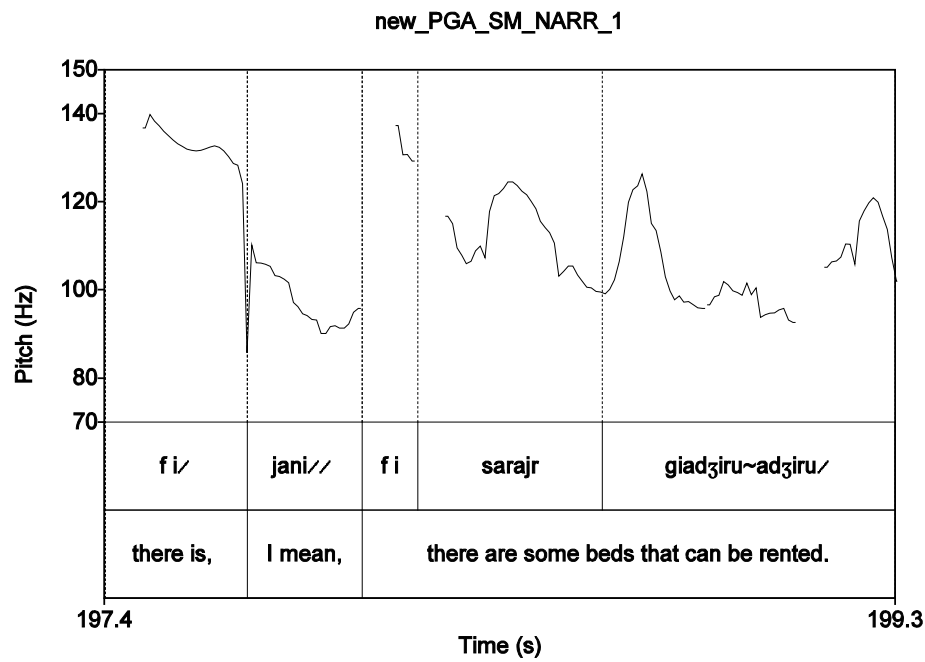
*fī* /  
 EXS

*janí* //  
 that\_is\_to\_say

*fī sarájr gi = adzírú~adzírú* /  
 EXS beds PROG=rent\PASS~rent\PASS

'He answered me: Sonny, there is, I mean, there are some beds that can be rented' (lit. he started telling me that) (PGA\_SM\_NARR\_1\_259-263)

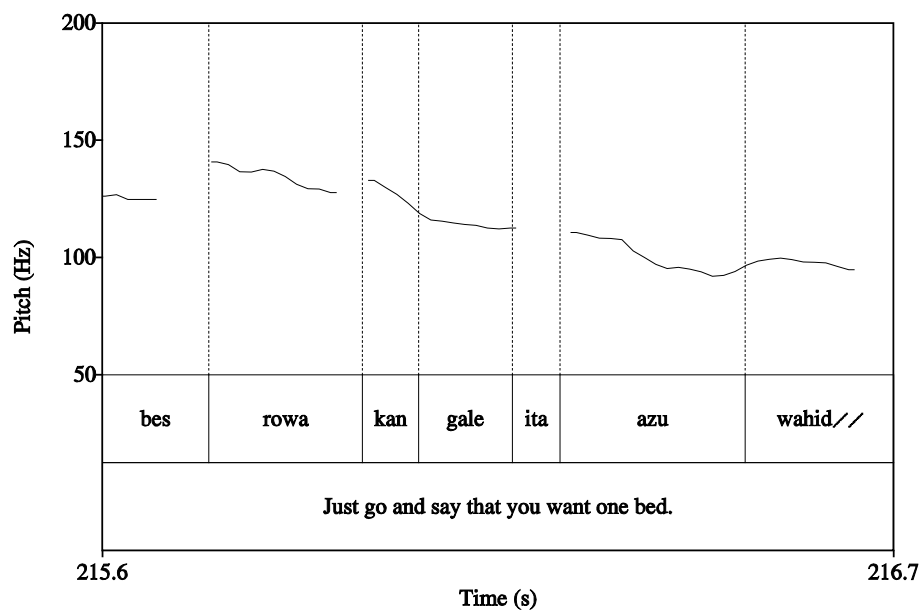




### 5.2.2. Intonation-unit boundaries in indirect speech reports

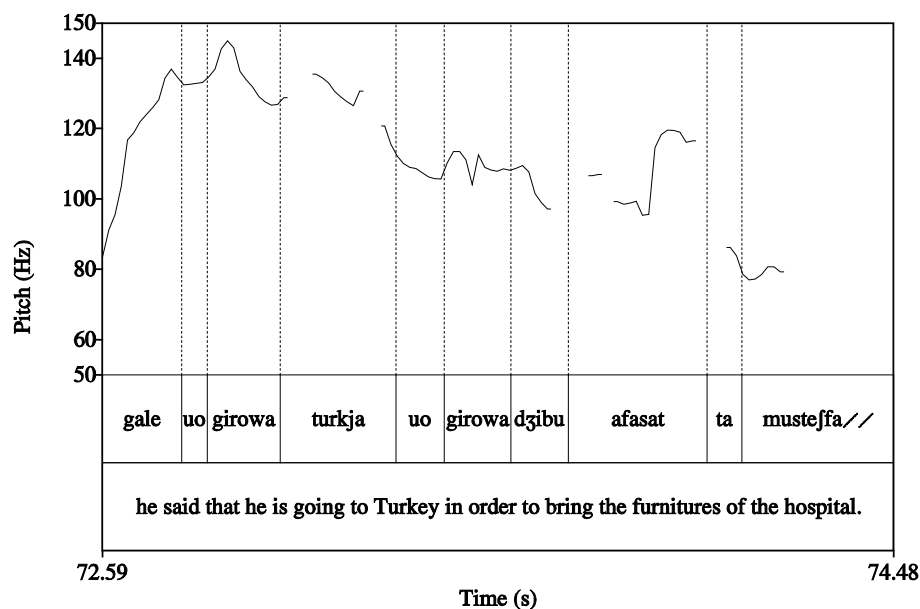
As mentioned before, the sole segmental difference between a direct and an indirect speech report in Juba Arabic is the presence of a deictic shift in indirect ones: the indirect speech is reported from the perspective of the narrator, not from that of the character. Only one of the four indirect speech reports is produced across multiple IU-s; three follow the natural speech declination with minor pitch variations and a rather flat overall contour; one (34) has more pitch movements than the others and a sharper declination.

- (32) *bes rówa kan gále íta ázu wáhid //*  
 only go ANT say 2SG want one  
 ‘Just go and say that you want one bed.’ (PGA\_SM\_NARR\_1\_286)



- (33) *gále úmon gi=gum úmon déru rówa /*  
 say 3PL PROG=get\_up 3PL want go  
 ‘(They) said that they are leaving; they want to go’  
 (PGA\_SM\_CONV\_1\_SP2\_003)

- (34) *gále úo gi=rówa túrkja úo gi=rówa dzíbu*  
 say 3SG PROG=go Turkey 3SG PROG=go bring  
*afas-át ta muséffa //*  
 thing-PL.N POSS hospital  
 ‘(he) said that he is going to Turkey in order to bring the furniture of the hospital.’ (PGA\_SM\_CONV\_2\_SP1\_042)



This last example is interesting as it echoes findings about the various semantic functions, mentioned in section 3.2.2, expressed by direct speech reports in Chantyal (Noonan 2006). The purposive meaning of ex. (34) is not a translation effect, and it is interesting to note that whereas Chantyal has recourse to the sequential converb of the quotative verb for this particular meaning, Juba Arabic, a language with hardly any morphological devices, simply uses a multifunctional verb form. Still it is not a surprising evolution as the grammaticalization of a quotative verb into a purposive marker is widely attested crosslinguistically, and in Sudan in particular (see e.g. Saxena, 1995; Vanhove 2004; Güldemann, 2008).

To sum up, direct and indirect quotes do not seem to behave differently in their cline of integration within the quotative frame, and in their final boundaries. The sole difference, the absence of an isochronous pattern in indirect speech reports, needs to be checked on a larger sample as 4 examples are too few to draw general conclusions.

## **6. Modern Hebrew quotatives**

### *6.1. Elements of syntax and prosody*

Like Zaar and Juba Arabic, the canonical constituent order of Modern Hebrew is SVO, but it may vary for reasons linked to information hierarchy. The subject argument is morphologically unmarked, but the direct object argument, when definite, is marked by a specific clitic preposition *et*= (with nouns), and its allomorph *ot*= (with pronouns). Recipient arguments of transitive verbs, among them the quotative verb *lomaʕ* ‘say’ and its suppletive form *lehagid*, are introduced by the preposition *l*= ‘towards’,

clitic to its nominal or pronominal host (the preposition also cliticizes to the verb when the recipient argument is a pronoun).

In complex sentences, the relative clause is usually embedded in the matrix clause with the nominal head preceding it and the rest of the embedding clause following it. Object complement clauses usually follow the matrix clause, and thus follow, directly or indirectly, the verbal head. Both clause types are introduced by an invariable clitic marker *ʃe* = .

Speech reports may be direct or indirect.

Direct speech reports are syntactically quotative complements, direct objects of the quotative verb, but in most cases, unlike definite nominal objects, pronominal objects, and complement clauses, they are not introduced by a preposition or a complementizer. The quotative frame, i.e. the subject, the quotative verb and the recipient, expressed in this order, precede the quoted speech. The recipient argument is often omitted, but, unlike the other three languages, omission of the subject is rare in the CorpAfroAs data where there are only two subjectless quotative frames. In some rare instances, the direct quoted speech is introduced by the similative<sup>14</sup> marker *keilu* ‘like’ (a crosslinguistically frequent source of quotative markers, see Güldemann, 2008), a construction typical of the younger generation (such as the female speaker 1 of CONV\_1 and NARR\_1 who is under 35).

Indirect speech reports on the other hand, like complement and relative clauses, are introduced by the clitic marker *ʃe* = ‘that’, and they are syntactically adapted to the narrator’s perspective by a deictic shift.

Modern Hebrew<sup>15</sup> has a lexical accent system where word-final stress characterized by a higher pitch is the phonological “default” stress. There is

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<sup>14</sup> It also functions as a discourse marker.

<sup>15</sup> This paragraph on prosody is mainly based on Mixdorff and Amir (2002), Amir, Silber-Varod and Izre’el (2004), Silber-Varod and Kessous (2008), and Silber-Varod (2011).

in addition a smaller set of lexical and prosodic words which have penultimate stress (antepenultimate stress is mainly found in borrowings). There is an overt rhythmic play between stressed and unstressed syllables. Function words usually do not carry stress. The duration of the final syllable of an IU, be it a continuing or a terminal contour, is double the length of the other syllables. Major terminal contours are falling in declarative utterances, rising on the last accented item in questions and even very strong rising in exclamative utterances. Continuous minor boundaries are of five types according to Silber-Varod and Kessous (2008) (who used the Corpus of Spoken Israeli Hebrew [CoSIH], see Izre'el and Rahav 2004): Continuous Rising tone, Continuous-Falling tone, Continuous Rising-Falling tone, Continuous Level tone, and Continuous Elongated tone, the latter being by far the most frequent one and the second and third ones the less frequent.

In the CorpAfroAs corpus of Modern Hebrew<sup>16</sup> speech reports are a rare rhetorical strategy, far less frequent than in the other three languages of our sample. Indirect speech reports amount to a total of a mere 9 examples, while direct speech reports are a bit more than twice as numerous<sup>17</sup> (21, of which only 2 are introduced by the simulative marker *keilu*). Direct and indirect quotes are almost equally distributed between narratives and conversations, but indirect speech reports are twice as numerous in narratives (6) than in conversations (3). These low figures, and the fact that conversations represent one third of the one-hour Modern Hebrew corpus do not provide any statistical significance to this observation, which would need to be confirmed on a larger corpus.

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<sup>16</sup> One text, NARR7, is taken up from the CoSIH corpus (see Izre'el and Rahav 2004)

<sup>17</sup> Zuckerman (2006: 469) claims that the ratio direct / indirect speech reports is just the opposite, but he does not mention what kind and quantity of data support his assertion.

## 6.2. Prosodic integration cline in Modern Hebrew

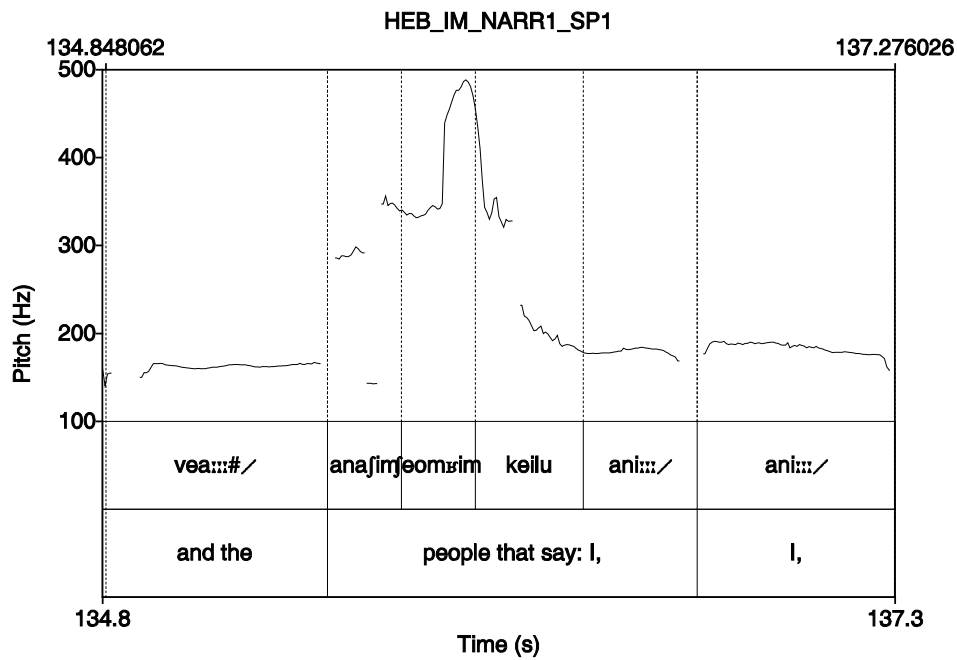
### 6.2.1. Intonation-unit boundaries in direct speech reports

14 of the 21 direct speech reports, i.e. a majority, are integrated within the same IU as the quotative frame (totally or partially when the quote is split into several IU-s), including one of the two examples with the simulative marker *keilu*. In the remaining 7 examples, the quotative frame is set off from the direct speech, most often simply by a major or a minor boundary, twice also followed by a pause. There is a clear tendency in the degree of prosodic integration according to genres. In narratives, the direct quote is integrated in the same IU as the quotative frame in 6 examples, and not integrated in the remaining example. The non integration might not be significant because it concerns one utterance where someone else speaks at the same time as the narrator.

Below is an example in a narrative where only the first word of the speech report is integrated in the same IU as the quotative frame because the narrator hesitates. The very high rising pitch of 150 Htz on the quotative verb, far above the usual pitch rise before *keilu* in other utterances, is explained by pragmatic reasons: the narrator is trying to convince her interlocutor of something implausible.

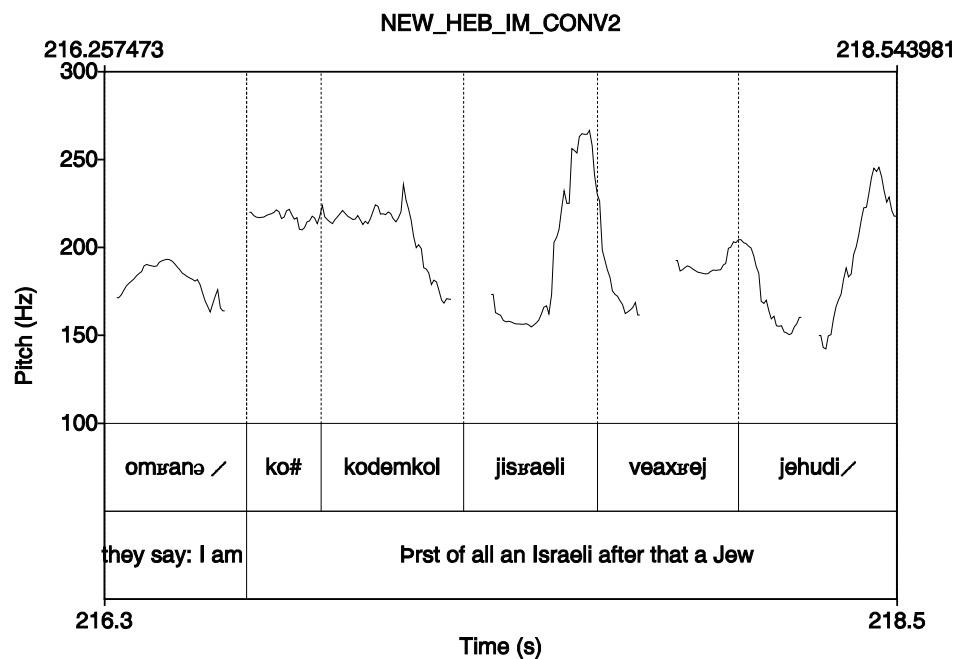
- (35) *ve = a::# /*  
and=FS  
*anašim je = omx-im keilu ani:: /*  
men\PL COMP=say\PTCP.ACT-PL.M like SBJ.1SG  
*ani:: /*  
SBJ.1SG  
*lemašal a# /*  
for\_example FS  
*lemašal kfe = ata mekabel stam //*  
for\_example when=SBJ.2SG.M obtain\PTCP.ACT[SG.M] whatever  
*notn-im dugm-a /*  
give\PTCP.ACT-PL.M example-SG.F  
'and the people who say like: I, I, for instance I... for instance when you  
get... they give there an example... '(HEB\_IM\_NARR1\_SP1\_138-143)





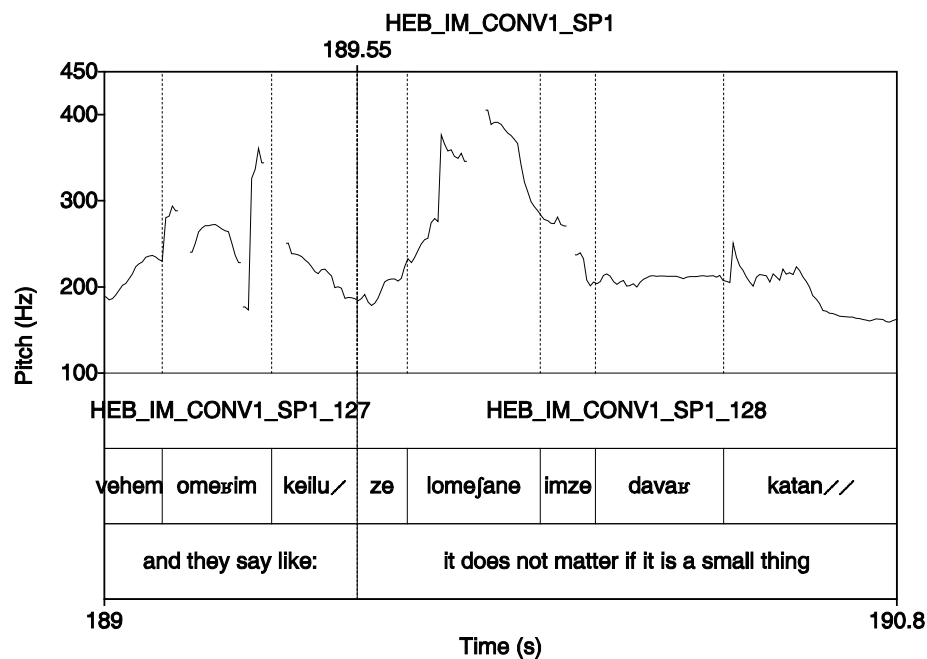
In conversations, the direct quote is more commonly set off from the quotative frame (11 examples), than the reverse (2 examples). One of these two (ex. 36) is split into several IU-s, and its first element consists in the 1st subject pronoun, which is enclitic to the quotative verb with which it is phonetically fused and reduced to [omʁanə]. A minor prosodic boundary follows it and the rest of the quoted speech follows with an initial pitch reset of over 100 Htz.

- (36) 687 omʁ-im                      ani                      /  
           say\PTCP.ACT-PL.M    SBJ.1SG  
**ko# kodemkol jisʁael-i ve=axʁej ze jehud-i**                      /  
 FS    first\_of\_all    Israel-ADJVZ    and=after    DEM Jewish-ADJVZ  
 ‘they say: I am first of all an Israeli, after that a Jew...’  
 (HEB\_IM\_CONV2\_SP1\_116-119)



The other example contains the similative marker *keilu*; a minor IU boundary follows the marker with a falling contour, and the beginning of the direct speech report is slowly increasing again over the first syllables, before a sharp rise of 90 Hz on the accented syllable.

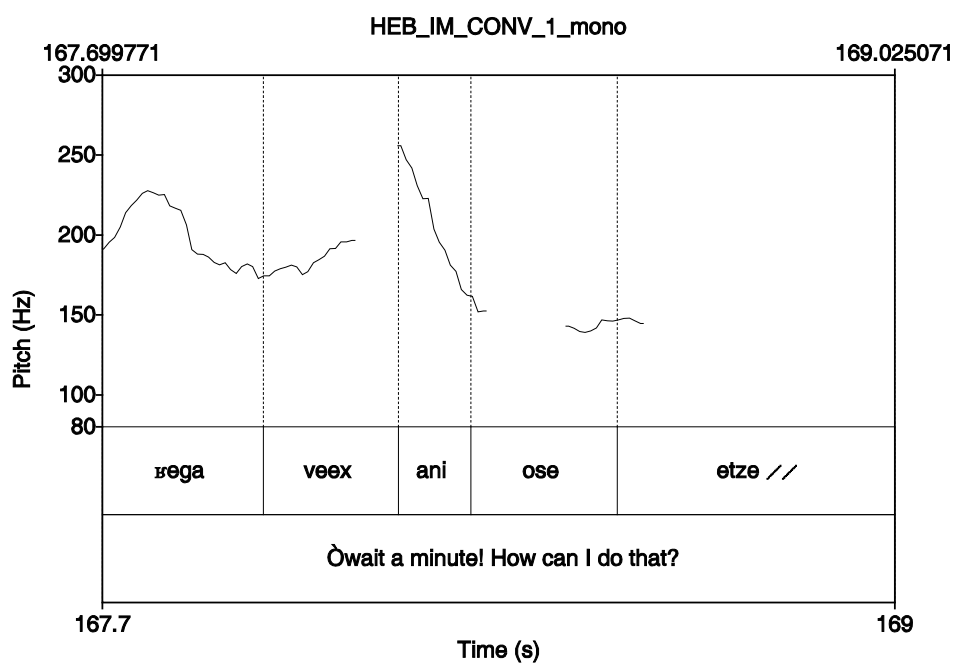
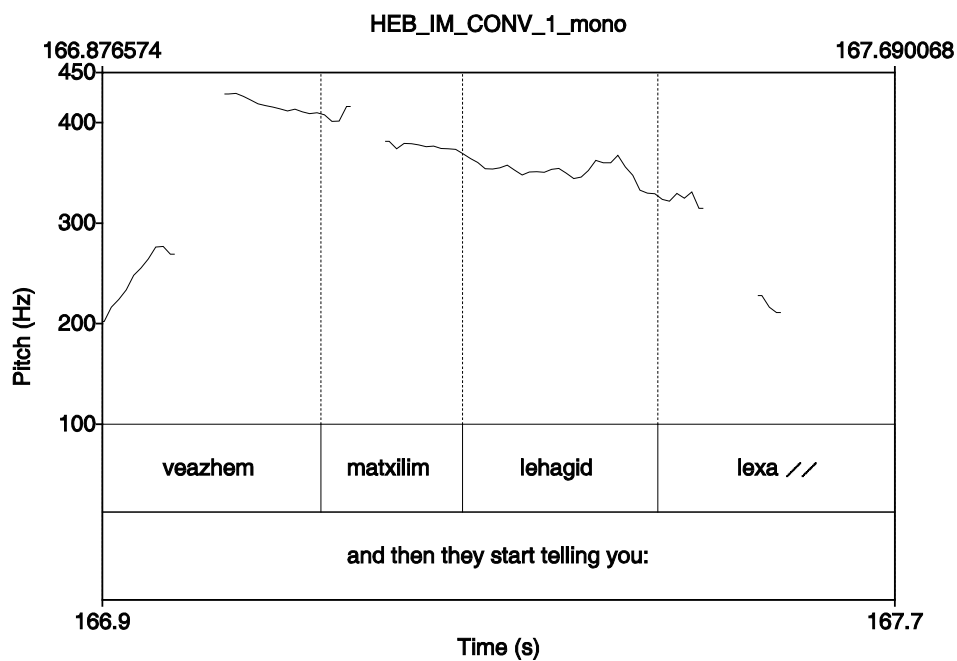
- (37) *ve = hem omʕ-im keilu /*  
 and=SBJ.3PL.M say\PTCP.ACT-.PL.M. like  
*ze lo = meʕan-e im ze davar katan //*  
 INDF NEG=change\PTCP.ACT-SG.M if INDF thing small  
 ‘and they say like: it does not matter if it is a small thing’  
 (HEB\_IM\_CONV1\_SP1\_127-128)



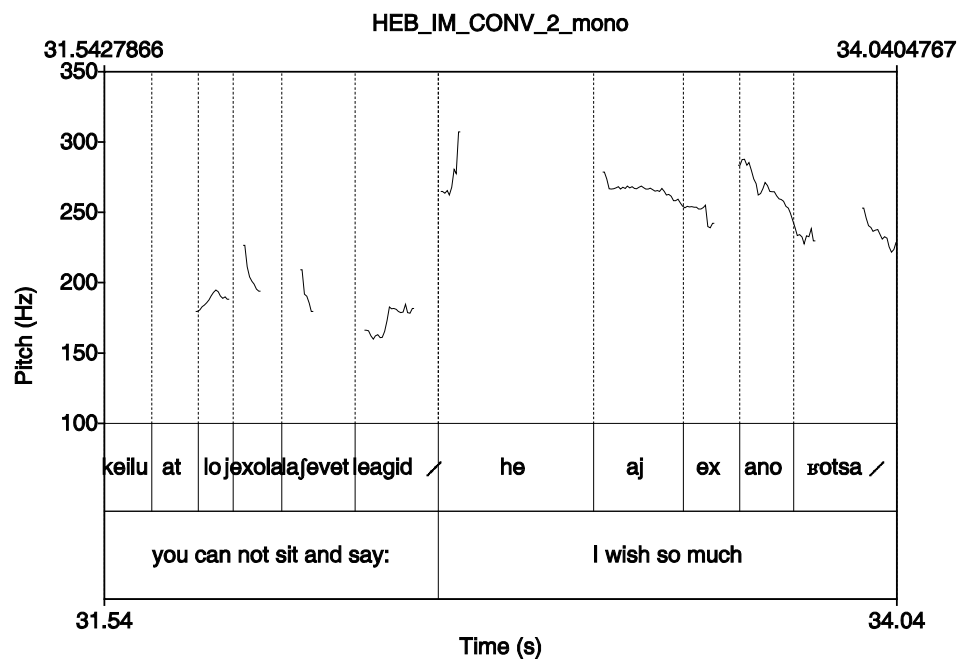
Because of the scarcity of examples it is not possible to tell apart whether *keilu* usually belongs to the quoted speech or to its frame. In any case the number of direct quotes is too small to draw conclusions about the distribution of prosodic patterns across genres, but is indicative for further research on a larger sample.

In association with the marking by IU boundaries, direct speech reports are also set off from the quotative frame by variations in pitch, and can be either pronounced at a lower pitch than the average pitch of the quotative frame as in (38) after a falling terminal contour or at a higher pitch after a continuing contour as in (39). On the pitch trace, a decrease or an increase of the fundamental frequency is clearly seen over the IU of the reported speech as compared with the quotative frame.

- (38) *ve = az hem matxil-im l = hagid = l = xa //*  
 and=so SBJ.3PL.M begin\PTCP.ACT-PL.M to=say\INF=to=2SG.M  
*ʔega ve = ex ani os-e*  
 one\_moment and=how SBJ.1.SG do\PTCP.ACT-SG.M  
*et = ze //*  
 OBJ.DEF=DEM  
 ‘and then they start telling you: Wait a minute! How can I do that?’  
 (HEB\_IM\_CONV1\_SP1\_103-104)

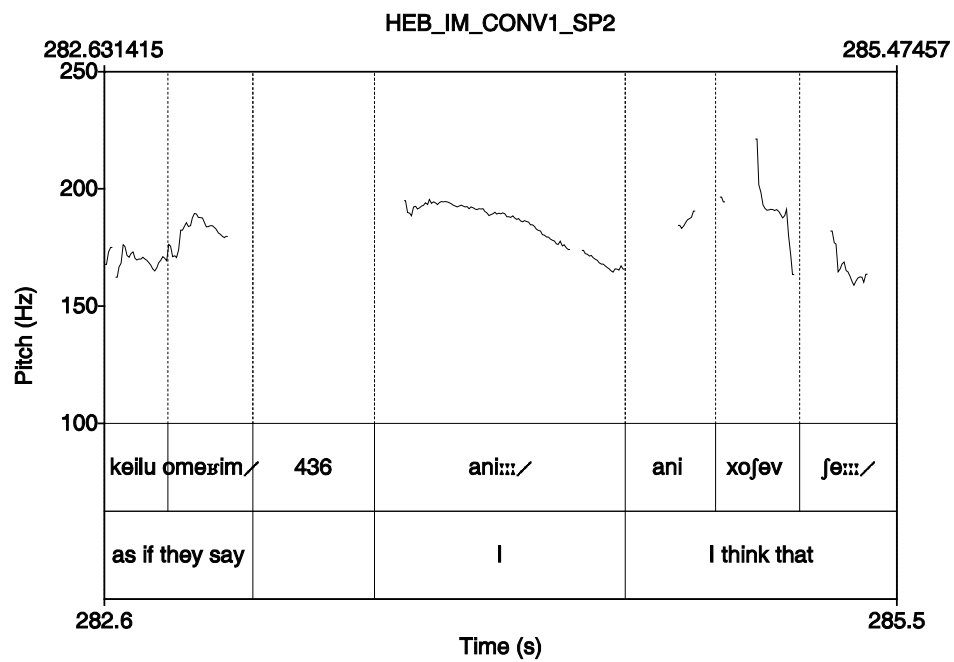


- (39) *keilu at lo jexol-a la=fevet l=hagid /*  
 like SBJ.2SG.F NEG can\PTCP.ACT-SG.F to=sit\INF to=say\INF  
*he aj ex ani kotsa /*  
 EXCM oye how SBJ.1SG want\PTCP.ACT-SG.F  
 'like you cannot sit and say: I wish so much...'  
 (HEB\_IM\_CONV2\_SP2\_015-016)

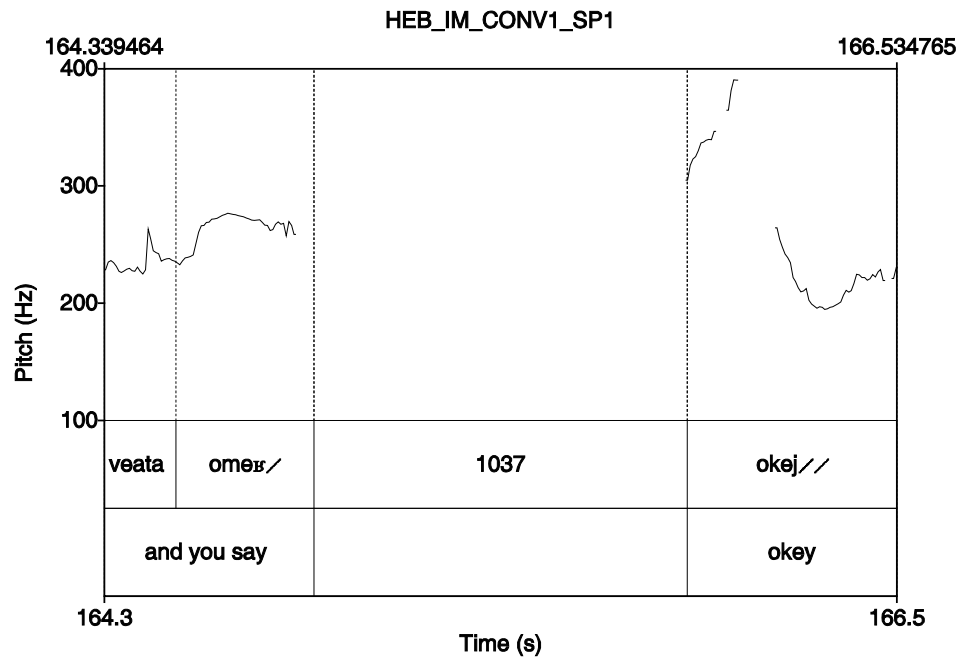


Of the three examples which are set off from the quotative frame by a pause, two are clearly due to the speaker's hesitation as in (40) where the subject independent pronoun is repeated and lengthened; the very long length of the third token with a pause (41) is more difficult to interpret but may be linked to speech processing issues as well:

- (40) *keilu omx-im* / 358  
 like say\PTCP.ACT-PL.M  
*ani* /  
 SBJ.1SG  
*ani xofev* *je* /  
 SBJ.1SG think\PTCP.ACT[SG.M] COMP  
 'as if they say: I, I think that...' (HEB\_IM\_CONV1\_SP2\_121-124)

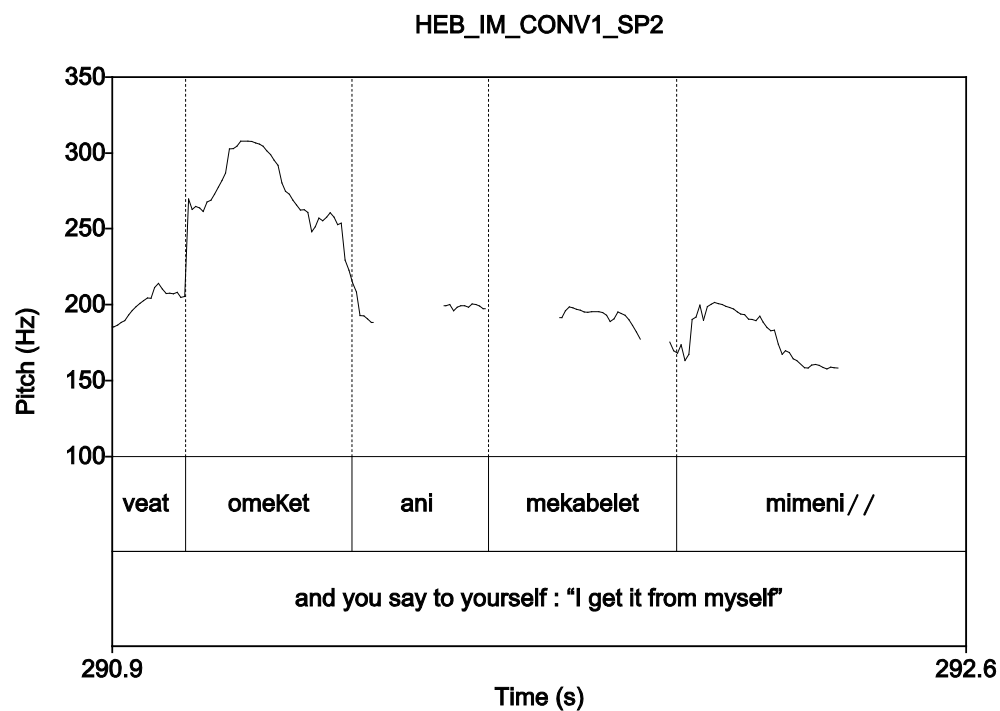


- (41) *ve = ata*      *omev*      / 1037  
 and=SBJ.2SG.M    say\PTCP.ACT.[SG.M.]  
*okej //*  
 okey  
 ‘and you say: Okey’ (HEB\_IM\_CONV1\_SP1\_099-101)

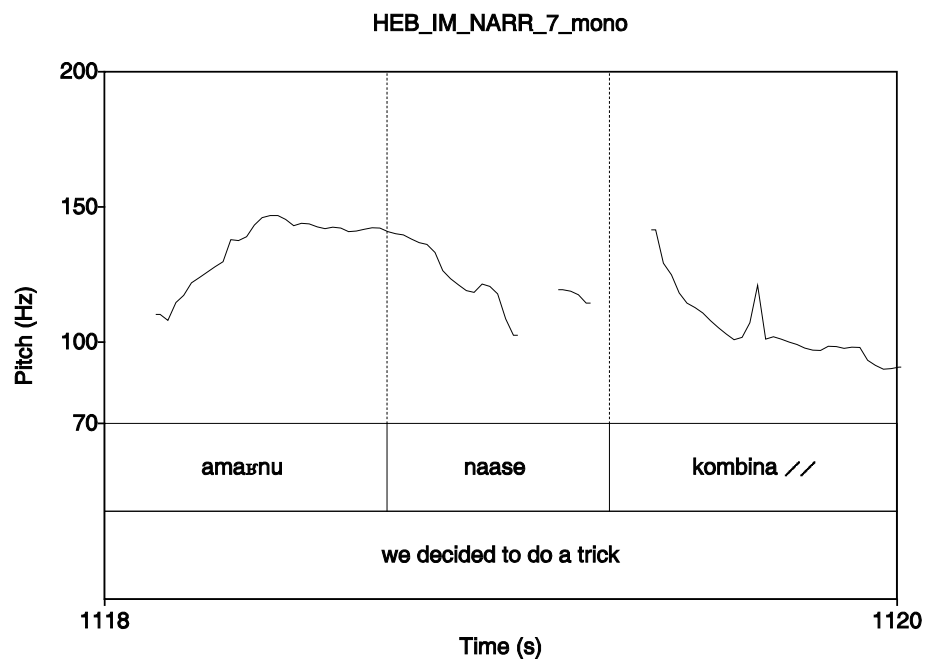


When the speech report is (fully or partially) integrated in the same IU as the quotative frame, there is a clear prosodic declination which starts towards the beginning of the quoted material as in (42) and (43) below:

- (42) *ve = at*                      *omek-et*                      *ani*  
 and=SBJ.2F.SG      say\PTCP.ACT-SG.F      SBJ.1SG  
*mekabel-et*                      *mi = meni //*  
 obtain\PTCP.ACT-SG.F      from=1SG  
 ‘and you say to yourself : I get it from myself’  
 (HEB\_IM\_CONV1\_SP2\_131)



- (43) *amak-nu*                      *na-ase*                      *kombin-a //*  
 say\PFV-1PL      1PL-do\nFCT      trick-SG.F  
 ‘we decided to do a trick’ (lit. we say: let’s do a trick)  
 (HEB\_IM\_NARR7\_SP1\_1152)



The above example reminds us of the intention meaning of reported speech constructions as described by Noonan (2006) or Chantyal, except that in Hebrew it is a finite verb form that is used instead of a converb. It is also highly possible that the optative form of the verb in the reported speech plays a role in this semantic interpretation.

Another feature which generally also sets off the direct speech report from the quotative frame is that in most cases, the latter is pronounced on a more rapid tempo than the former, as can be easily seen on all the pitch traces of this section, and as was already observed in some instances in Beja.

Like in Zaar and Juba Arabic, the end of direct quotes are systematically set off from the next quote or narrative utterance by an intonation-unit boundary, a major one in most cases, and often also by a pause (in 15 examples).

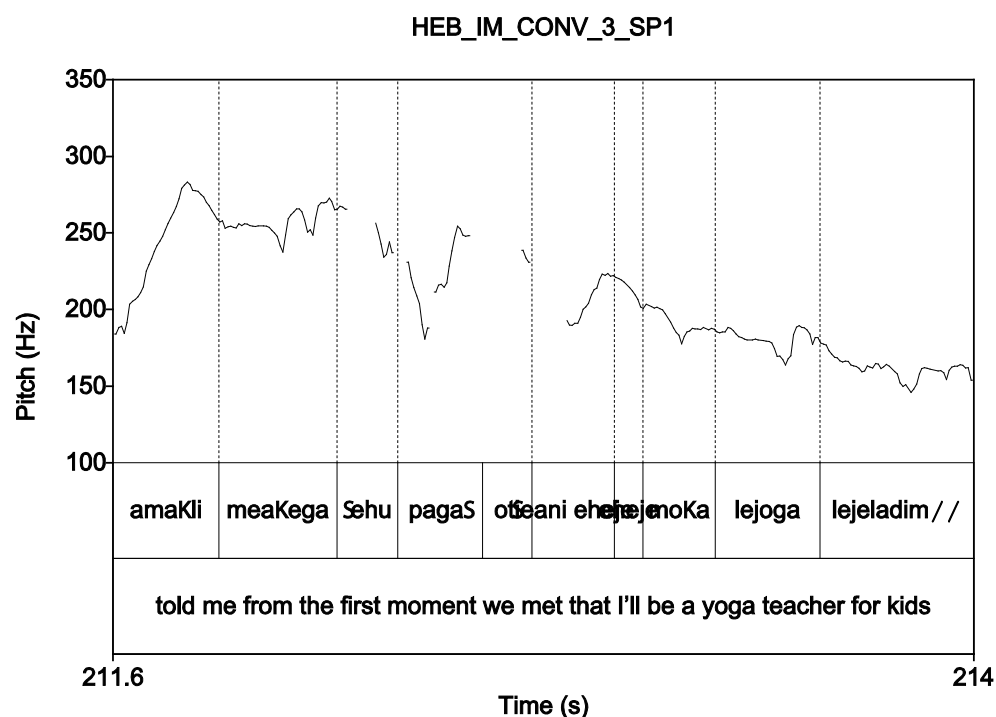
#### 6.2.2. *Intonation-unit boundaries in indirect speech reports*

As already mentioned, indirect speech reports are more frequent in narratives (7) than in conversations (2) but the difference is not significant, because it almost matches the proportion of each genre in the corpus.



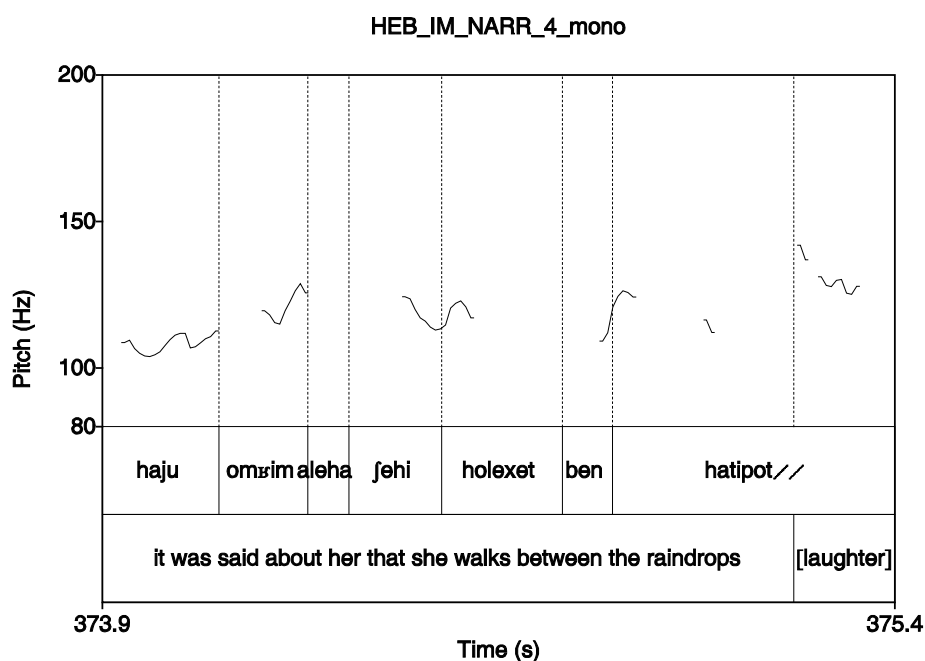
Contrary to direct speech reports, indirect speech reports (or their beginning) are never set off from the quotative frame by a prosodic boundary. The complementizer is clitic to the first constituent of the indirect quote (whereas it belongs to the same IU as the quotative frame in Zaar). As with direct speech reports, the end of the indirect speech reports is always marked by a prosodic boundary, mainly major ones (7) of which 3 are also followed by a pause. Again, these observations need to be checked on a larger sample. Indirect speech reports are more often uttered at a lower pitch than the quotative frame as shown in (44) where the quote follows a declination from 250Hz to 150Hz and ends on a falling terminal contour.

- (44) *amaKli = l = i* *me = ha = kega*  
 say\PFV[3SG.M]=to=OBJ.1SG from=DEF=one\_moment  
*fe = hu* *pagaS = ot = i* *fe = ani*  
 REL=SBJ.3SG.M meet\PFV=OBJ.DEF=OBJ.1SG COMP=SBJ.1SG  
*e-heje* *mox-a* *l=joga* *l=jeled-im //*  
 1SG-be\NFACT teacher-SG.F to=yoga to=child-PL.M  
 ‘(my amazing teacher who is my mentor) told me from the first moment we met that I’ll be a yoga teacher for kids’ (HEB\_IM\_CONV3\_SP1\_208-210)

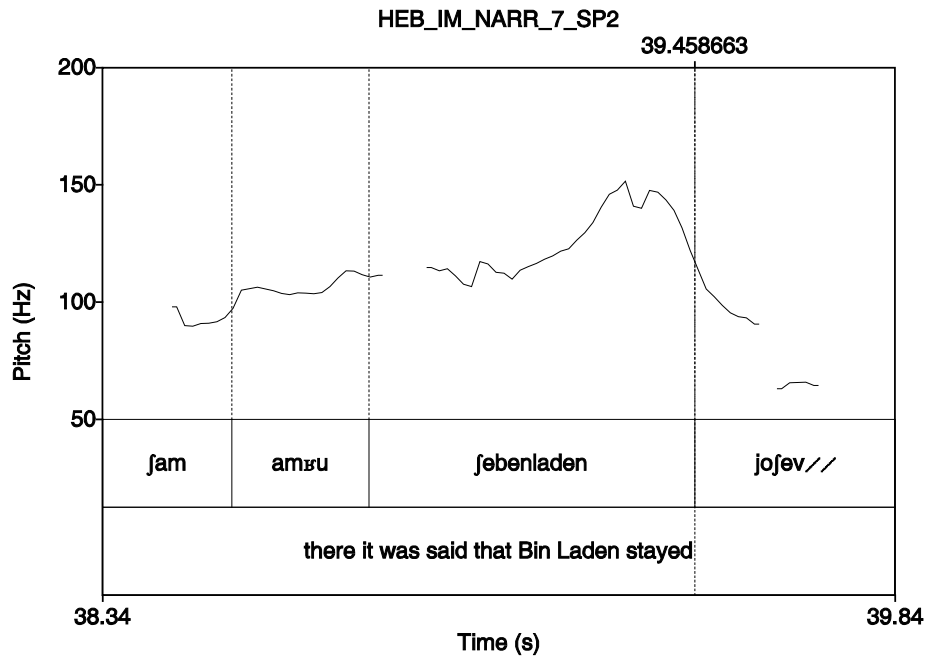


Indirect speech reports may also contrast with the quotative frame in an opposite way: they can be pronounced at a higher pitch than the quotative frame, with very little variation in pitch (as in 45), except when a strong emotion is associated to the pitch increase (as in 46).

- (45) *haj-u omʁ-im al=ha ʃe=hi*  
 be\PFV-3PL say\PTCP.ACT-PL.M on=3SG.F COMP=SBJ.3SG.F  
*holex-et ben ha=tip-ot //*  
 go\PTCP.ACT-SG.F between DEF=drop-PL.F  
 ‘it was said about her that she walks between the raindrops’  
 (HEB\_IM\_NARR4\_SP1\_323)



- (46) *ʃam amʁ-u ʃe=benladen joʃev //*  
 there say\PFV-3PL COMP=Bin\_Laden sit\PTCP.ACT.[SG.M]  
 ‘there it was said that Bin Laden stayed’ (HEB\_IM\_NARR7\_SP2\_021)



The use of indirect speech is clearly linked to modality and marks the stance the narrator is taking toward the speech report, bringing epistemic and evaluative values. Three main syntactic devices are associated with the use of indirect quotes in these modal contexts.

(i) The omission of the lexical or pronominal independent subject of the quotative verb used in the 3<sup>rd</sup> person plural, as a pseudo-passive construction, as in (46) above or (47) below which has in addition an epistemic modal adverb in the indirect speech report:

- (47) *amx-u = l = o*                      *fe = hu*                      *kanix?e //*  
 say\PFV-3PL=to=OBJ.3SG.M    COMP=SBJ.3M.SG    maybe  
*savix*                      *l = haniax*                      *ji-faex*                      /  
 reasonable                      to=suppose\INF                      3SG.M-stay\nFCT  
*tsemax* *l = kol = ha = xajim*                      *hu*  
 plant                      to=every=DEF=life\PL                      SBJ.3M.SG  
*jaxol*                      *vak* *l = matsmets* *ki* *ze* *XXX //*  
 can\ACT.PTCP.[SG.M]                      only                      to=blink\INF                      CSL                      DEM                      XXX  
 'he was told that maybe it is possible that he will remain paralyzed for life,  
 he will only be able to blink since...' (HEB\_IM\_CONV1\_SP1\_041-043)

(ii) The formulation of the quotative frame as a question:

- (48) *amax-ti = l = exa*                      *fe = jom*                      *axvej*  
 say\PFV-1SG=to=2SG.M                      COMP=day                      after  
*fe = xazax-ti*                      *mi = lajden*                      *haja*                      *minus esex/*

REL=come\_back\PFV-1SG from=Leiden be\PFV[3SG.M] minus ten  
 ‘Did I tell you that one day after I came back from Leiden it was minus ten?’  
 (HEB\_IM\_NARR7\_SP2\_101)

(iii) The inclusion of the quotative verb in a modal construction with an auxiliary verb as above in (45) or below (49):

(49) *haj-ti omeʁ se=ha=tipul b b /*  
 be\PFV-1SG say\PTCP.ACT COMP=DEF=care in in  
***b=ha=jelad-im // b=bajit-ej ha=jelad-im // 353***  
 in=DEF=child-PL.M in=house-PL\CS DEF=child-PL.M  
***haja behexlet tipul tov haja /***  
 be\PFV[3SG.M] by\_all\_means care good be\PFV[3SG.M]  
 I would say that the care of the children, in the children's houses, it was  
 definitely good care... (HEB\_IM\_NARR4\_SP1\_159-163)

## 7. Conclusion: Towards a typology

The four languages of our sample differ in the extent to which they make use of reported speech as a rhetorical strategy in quite radical proportions: in Beja they are almost three times more numerous than in Zaar and over three times in Juba Arabic (for which the 70 examples attested in the 46 mn corpus could be extrapolated up to some 90 examples would the corpus had been of one-hour duration as the others), and more than ten times more than in Modern Hebrew. It is noticeable that the highest proportions of reported speech occur in the three unscripted languages of the sample. The type and content of narrations and conversations (and the absence of the latter genre in Beja) may have introduced a bias in the quantitative results, but they may be indicative of a more general rhetorical profile of these languages.

The four languages also differ in the proportion of direct vs indirect speech reports in favor of the former. Indirect speech report is unknown in Beja, while it is just incipient and marginal in the Juba Arabic pidgin. Figures in Modern Hebrew are not statistically significant but nevertheless direct quotes are more than twice as numerous as indirect ones. In this language the hypothesis concerning the link between genres and types of speech reports needs to be checked on a much larger corpus. Zaar on the other hand clearly favors direct quotes which represent 66% (i.e. 2/3) of all speech

reports. Direct and indirect speech reports do not seem to differ greatly in our data in terms of prosody (unfortunately the Hebrew and Juba Arabic data are not statistically significant — for different reasons), but there are nevertheless some indications of quantitative differences that need to be checked on larger corpora: in Zaar indirect speech reports are less integrated than direct ones in the quotative frame, but it is the reverse in Modern Hebrew where the number of tokens is not significant; in Juba Arabic, indirect speech has less pitch variation than direct speech and may lack isochronous patterns.

The prosodic integration cline of speech reports also varies from language to language, according to different criteria, and we would now like to propose some preliminary hypotheses for a typology of the interface between prosody and speech report that could be further tested empirically on other languages and on larger samples of languages. These claims concern the interface between morpho-syntax and intonation units:

*1. If languages have no complementizer, the prosodic integration of speech reports within the same intonation unit as the quotative frame tends to be very high. (The prosodic integration concerns the end of speech reports in SOV languages, and their onsets in SVO language; our small sample contains no VSO languages).*

Juba Arabic represents the top most representative language for this claim with 100% of prosodically integrated speech reports, be they direct or indirect; Beja comes next with almost 90% (with the quotative verb only). Modern Hebrew direct speech reports (without a complementizer) show a majority of integrated tokens (65%), but this is statistically not significant because of the small number of examples, and further research on larger corpora is needed for this language.

*2. Conversely, if languages have a complementizer, whatever their word orders, speech reports tend to be less integrated within the quotative frame.*

Zaar, with only 40% of integrated speech reports, is representative of this type, and may be also Dolakha Newar (Genetti [2011] does not provide any statistics). Modern Hebrew indirect speech reports might be a counterexample, but again there are too few examples in our data. Still, this may be indicative of a difference between direct and indirect speech reports that needs to be further investigated.

*3. Non clitic complementizers tend to be prosodically integrated within the quotative frame, but not exclusively, when a quotative verb is overtly expressed.*

Zaar is paramount of this type where a prosodic boundary between the quotative frame and the speech report can only occur after the complementizer. Juba Arabic (in which all speech reports are integrated in the quotative frame) is also representative.

*4. In general, it seems that the presence of an explicit morpho-syntactic cue allows for less prosodic integration.*

*5. In SOV languages where the quotative verb follows the speech reports, their onset is systematically set off from the previous intonation unit, a clear prosodic cue, marking the beginning of the speech report. In SVO languages it is the end of the speech report which is set off from the next IU.*

The last claim seems to be a good candidate for a universal prosodic cue of speech reports, with a strong preference for major terminal boundaries and pauses. It concerns all four languages of our sample. The rare cases with a minor boundary occur when the adjacent utterance is a dependent clause, as in Beja. This is a strong indication that quoted speech is treated as independent of the narrative in which it is embedded.

There are few exceptions to the above claims in our data (often explainable by difficulties in speech processing), but this does not mean that they can be

generalized without further empirical and typological studies, and we hope to have paved the way for more research in this domain. More research is also needed concerning the other prosodic cues of speech reporting such as loudness and rhythm, occasionally mentioned in this chapter for lack of space.

## List of glosses

/	minor prosodic boundary	INDF	indefinite
//	major prosodic boundary	INF	infinitive
<...>	code-switching	INT	intensive
ABL	ablative	IPFV	imperfective
ACC	accusative	IRR	irrealis
ADJVZ	adjectivizer	LOC	locative
ADRF	address form	M	masculine
ANT	anterior	MNR	manner
AOR	aorist	N	nominal
AOR	aorist	nASS	non assertive
ASS	assertive	NEG	negation
CAUS	causative	nFCT	non factual
CMPR	comparative	NOM	nominative
COM	comitative	OBJ	object
COMP	complementizer	OBL	oblique
COND	conditional	PASS	passive
COORD	coordination	PFV	perfective
COP	copula	PL	plural
CS	construct state	POSS	possessive
CSL	causal	PROG	progressive
CVB	converb	PROH	prohibitive
DEF	definite	PROX	proximal
DEM	demonstrative	PTCP.ACT	active participle
DIR	directional	RECP	reciprocal
DIST	distal	REL	relator
EXCM	exclamation	REM	remote
EXS	existential	SBJ	subject
F	feminine	SBJV	subjunctive
FS	false start	SG	singular
FUT	future	SMLT	simultaneity
GEN	genitive	VN	verbo-nominal
IMP	imperative	VOC	vocative
IND	indicative		

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